

Undergraduate Programs & Regulations Catalog



Bulletin of

Memphis State University **1984-85**



The **Bulletin** of Memphis State University is composed of the following publications: *General Information Catalog*, *Undergraduate Programs and Regulations Catalog*, *Graduate School Catalog*, and *The Cecil C. Humphreys School of Law Issue*. The *Student Handbook* and *Schedule of Classes* (Fall, Spring, and Summer) are official extensions of the **Bulletin**. All of these publications have been designed to provide current and prospective students, faculty, and staff with a comprehensive description of the University and its academic programs, regulations, services, and activities. Recommendations concerning these publications should be addressed to the Coordinator of Academic Programs in the Office of Academic Affairs. A brief description of each publication follows.

The **GENERAL INFORMATION CATALOG** gives the prospective undergraduate student an overview of the academic programs, facilities, services, fees, and activities of the University. It includes detailed admission information and an application form. The requirements for degree programs are general in nature and do not constitute a contract with the student. This publication is distributed to prospective students only.

The **UNDERGRADUATE PROGRAMS AND REGULATIONS CATALOG** provides the Memphis State University student with a detailed description of the curriculum, the requirements for graduation, and the academic regulations. The inside front cover of this publication includes the contract policy pertaining to degree requirements. It is distributed to MSU students upon initial enrollment at the University and to transfer applicants needing to plan a transfer program. Because students may graduate using the degree requirements from any valid catalog beginning with the year which they were first admitted to undergraduate study, the issue received upon admission should be retained by the student.

The **GRADUATE SCHOOL CATALOG** provides current and prospective graduate students with a description of the University, graduate program requirements, and graduate school regulations. Admission requirements, application form, and fees are also included.

The **CECIL C. HUMPHREYS SCHOOL OF LAW ISSUE** of the bulletin provides current and prospective law students with a description of the degree requirements, admissions requirements, fees, and activities of the School of Law. An application form is also provided.

The **STUDENT HANDBOOK** provides new students with a brief description of the areas of Student Educational Services, student activities, campus services, policies and procedures related to Student Educational Services and the Code of Conduct. Each entering student receives a copy of this publication and is responsible for becoming familiar with the Code of Conduct and the policies and procedures.

The **SCHEDULE OF CLASSES** is published a few weeks prior to each academic term (Fall, Spring, and Summer). It contains a detailed outline of the registration procedure, individual course offerings (course, time, days, location, and instructor), and course or program revisions made since the publication of the most recent *Undergraduate Programs and Regulations Catalog* and the *Graduate School Catalog*. It is an official extension of these catalogs. The academic calendar listing all deadlines is included in the catalogs and in the *Schedule of Classes*.

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June, 1984

Published four times yearly—April, May, June, July—by Memphis State University.

The validity date for degree requirements is Summer, 1991.

The University reserves the right to cancel or alter any part of this Catalog without notice (subject to the following):

The provisions of this catalog constitute a contract between Memphis State University and a student who commences any program of study insofar as it relates to the degree requirements for that program during the effective period of this catalog, and the degree requirements are subject to change during such period only to the extent required by federal or state laws or accreditation standards. The specific courses or activities constituting the degree requirements for any program are subject to substitution at any time prior to completion by the student.

The remaining provisions of this catalog reflect the general nature of end conditions concerning the educational services of Memphis State University at this time, but do not constitute a contract or otherwise binding commitment between Memphis State and the student. Any fees, charges or costs, and all academic regulations set forth in this catalog

are subject to change at any time, and all courses, programs and activities described in this catalog are subject to cancellation or termination by Memphis State University or the State Board of Regents at any time.

The institution provides the opportunity for students to increase their knowledge by providing program of instruction in the various disciplines and programs through faculty who, in the opinion of the institution, are trained and qualified for teaching at the college level. However, the acquisition of knowledge by any student is contingent upon the student's desire to learn and the application of appropriate study techniques to any course or program. As a result, the institution does not warrant or represent that any student who completes a course or program of study will necessarily acquire any specific knowledge or skills or will be able to successfully pass or complete any specific examination for any course, degree, or license. (SBR 2.04.00.01)

BULLETIN OF MEMPHIS STATE UNIVERSITY

*The Seventy-second session will open
August 31, 1984*



Thomas G. Carpenter, Ph.D., *President*
Cecil C. Humphreys, Ph.D., *President Emeritus*

UNDERGRADUATE PROGRAMS AND REGULATIONS CATALOG

1984-85

MEMPHIS, TENNESSEE

JUNE, 1984

Memphis State University offers equal educational opportunity to all persons without regard to race, religion, sex, creed, color, national origin, or handicap. The University does not discriminate on these bases in the recruitment and admission of students, the recruitment and employment of faculty and staff, and the operation of any of its programs and activities, as specified by federal laws and regulations. The designated coordinator for University compliance with Section 504 of the Rehabilitation Act of 1973 is the Vice President for Student Educational Services.

CAMPUS DIRECTORY

OFFICE	BUILDING	TELEPHONE (454-XXXX)	OFFICE	BUILDING	TELEPHONE (454-XXXX)
Academic Counseling	Scates Hall 107	2062	Identification Cards (Replacement)	Scates Hall 204	2298
Add/Drop Courses	See your advisor		Information Center	3641 Central Avenue	2040
Admissions	Administration 215	2101	Insurance, Student	Health Center	2287
General Information		2000	International Student Advisor	University Center 407	2054
Freshman Information		2390	Library	Brister 101	2837
Transfer Information		2111	Lost and Found	University Center Information	2041
Graduate Admissions Information		2911	Organizations, Student	University Center 416	2093
Law School Information	Law School 201	2073/2078	MEMPHIS STATE REVIEW	Patterson 230	2029
International Student	University Center 407	2358/2054	Photo Services	Meeman Journalism 329	2196
Alumni Affairs	Normal 637	2701	Post Office	Jones Hall 107A	2380
Ambassadors Board	Normal 637	2701	Probation (Academic)	Administration 167	2393
Athletics (Intercollegiate)			Psychological Services Center	Psychology 126	2147
Men		2335	Publications Committee	Administration 303A	2609
Women		2315	Religious Activities	University Center 416	2093
Calendar of Events			Reservations		2801
Activities	University Center 201D	2041	Tennis, Racquetball, Handball		
Recreation/Intramural Events	Physical Ed. & Recreation	2802	Residence Life	Richardson Towers 011	2295
University Center Events	University Center	2041	Director, Reservations, Married Apartments		
Conferences	Richardson Towers 112	452-2021	Residence Hall		
Career Counseling	Scates Hall 104	2228	Association	Robison Hall	2825
Center for Student Development	Scates Hall 111	2067	Security	Administration 151	2212
Class Attendance	See your professor		Student Aid	Scates Hall 312	2303
Commuter Services	University Center 416	2093	Student Development	Scates Hall 216	2291
Computer Services	Administration 112	2406	Student Educational Services	Administration 377	2114
Continuing Education	Administration 360	2991	Student Government Association	University Center	2051
Counseling	Scates Hall 111	2067	Student Information System		2037
Academic	Scates Hall 107	2062	Student Life, Dean	University Center 419	2187
Career	Scates Hall 104	2228	Student Records		
Personal	Scates Hall 111	2067	Academic	Administration 119	2671
Debate	Theatre & Communication Arts	2600	Personnel	Scates Hall 206	2299
DESOTO Office	Meeman Journalism 113	2195	Telephone Service	Jones Hall 103	2999
Dramatics	Theatre & Communication Arts	2566	Testing Center	Scates Hall 103	2428
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Employment/Placement			General	University Center 117	2043
Student (on campus)	Scates Hall 314	2303	Athletics	Athletics Office Building	2335
Student (off campus)	Scates Hall 205	2016	Transcripts	Administration 143	2671
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Financial Aid	Scates Hall 312	2303	Program	University Center 414	2035
Food Services Director	Jones Hall	2740	Information	University Center 201D	2041
Fraternity/Sorority Activities	University Center 416	2093	Vending Refunds	University Center 201	2041
Grade Appeals	See Catalog & your professor		Withdrawal		
Graduate Dean	Administration 315	2531	Graduate	Administration 315	2531
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1984

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1984-85 UNIVERSITY CALENDAR

The calendar is subject to change at any time prior to or during an academic term due to emergencies or causes beyond the reasonable control of the institution, including severe weather, loss of utility services, or orders by federal or state agencies. (SBR 2:04:00:01)

FALL SEMESTER 1984

AUGUST 27-30 Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

AUGUST 30: Meeting of the new members of the University faculty, University Center Ballroom, 9:00 A.M.

AUGUST 31: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings of colleges and departments

SEPTEMBER 3: Holiday: Labor Day

SEPTEMBER 4-6: Registration Week: For detailed dates and times, see the *Schedule of Classes* for the Fall Semester, 1984

SEPTEMBER 7: Classes meet as scheduled

SEPTEMBER 13:

Last day for adding courses

Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in December, 1984.

OCTOBER 3: Last day for removing Summer Session "Incomplete" grades

OCTOBER 4: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to the College Directors of Graduate Studies.

OCTOBER 26:

Last day for all students to withdraw from the University

Last day for all students to drop courses

NOVEMBER 28: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1985

NOVEMBER 22-25: Holidays: Thanksgiving

DECEMBER 7: Last day for submission of theses/dissertations to the Graduate School.

DECEMBER 13: Study Day

DECEMBER 14: Final examinations begin

DECEMBER 22: Commencement

SPRING SEMESTER 1985

JANUARY 7-10: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

JANUARY 14-16: Registration Week: For detailed dates and times, see the *Schedule of Classes* for the Spring Semester, 1985

JANUARY 17: Classes meet as scheduled

JANUARY 23:

Last day for adding courses

Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in May, 1985.

FEBRUARY 5: Last day for removing Fall Semester "Incomplete" grades

FEBRUARY 13: Last day for graduate students to submit master's degree candidacy and doctoral candidacy forms to College Directors of Graduate Studies.

MARCH 8:

Last day for all students to withdraw from the University

Last day for all students to drop courses

MARCH 17-24: Spring Holidays

APRIL 17: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1985

APRIL 26: Last day for submission of theses/dissertations to the Graduate School.

MAY 2: Study Day

MAY 3: Final examinations begin

MAY 11: Commencement

Dead Week. Definition: The four day period preceding final examinations and including Study Day (Thursday). No student social or athletic functions shall be scheduled during Dead Week.

Study Day. Definition. The day prior to final examinations during regular semesters. No academic activities shall be scheduled on Study Day. No study or review sessions which the student may feel obligated to attend may be scheduled.

Final Examination Period. No examination shall be given at a time other than the scheduled time except with written permission from the department chairman and the college dean. No social or athletic functions shall be scheduled during the Final Examination Period.

Intercollegiate athletics are excepted from the above policies.

FIRST SUMMER TERM 1985

JUNE 3-4: Registration — For detailed dates and times, see the *Schedule of Classes* for the Summer Session, 1985

JUNE 5: Classes meet as scheduled

JUNE 6:
Last day for adding First Term courses

Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in August, 1985.

JUNE 20: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies.

JUNE 20:
Last day for all students to withdraw from the University (First Summer Term)

Last day for all students to drop courses (First Summer Term)

JULY 3: Last day for removing Spring Semester "Incomplete" grades

JULY 4: Holiday: Independence Day

JULY 10: Final examinations

SECOND SUMMER TERM 1985

JULY 15: Course adjustment day and registration for the Second Summer Term

JULY 16:
Classes meet as scheduled

Last day to add or to register for Second Term courses

JULY 31:
Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred December, 1985

Last day for all students to withdraw from the University (Second Summer Term)

Last day for all students to drop courses (Second Summer Term)

AUGUST 2: Last day for submission of theses/dissertations to the Graduate School.

AUGUST 16: Final examinations

AUGUST 18: Commencement

EXTENDED SUMMER TERM 1985

JUNE 3-4: Registration: For detailed dates and times, see the *Schedule of Classes* for the Summer Session

JUNE 5: Classes meet as scheduled

JUNE 6:
Last day for adding or registering for Extended Term courses
Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in August, 1985.

JUNE 20: Last day for graduate students to submit master's degree candidacy and doctoral candidacy forms to the College Directors of Graduate Studies.

JUNE 25: Last day for removing Spring Semester "Incomplete" grades

JULY 4: Holiday: Independence Day

JULY 10:
Last day for all students to withdraw from the University (Extended Summer Term)

Last day for all students to drop courses (Extended Summer Term)

JULY 15-16: Mid-Term Break

JULY 31: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in December, 1985

AUGUST 2: Last day for submission of theses/dissertations to the Graduate School.

AUGUST 15: Study Day

AUGUST 16: Final examinations

AUGUST 18: Commencement

USING THE CATALOG FOR DEGREE PROGRAM PLANNING

Each student is responsible for fulfilling all of the requirements for the degree program being pursued and for following the procedures and regulations as stated in the *Catalog in effect when entering college*. This *Catalog* is valid for seven years. Students should keep a copy of the *Catalog* they enter under until they graduate. Assistance from an advisor is helpful in planning the program of studies and in selecting the specific courses to be taken for each semester.

The *Graduation from the University* section of the *Catalog* outlines the minimum university level degree requirements. In addition to these, the student must fulfill the college level requirements for the degree and the major requirements. If the admission and/or retention standards for a particular college or department differ from the university requirements, they will be listed in the college degree program description. If they do not, the university requirements apply. The guidelines below will be helpful in planning which program to follow.

- (1) read the *Catalog* to investigate what options are available;
- (2) consult with an academic advisor in the Academic Counseling Unit and/or the colleges which offer majors which are of interest to you;
- (3) talk with the departmental faculty in these areas of interest;
- (4) take advantage of the counseling offerings of the Center for Student Development (Testing, Career Counseling, Academic Counseling, Personal/Psychological Counseling, and the Educational Support Program);
- (5) become familiar with the *Academic Regulations* section of the *Catalog*; determine the grades which are needed to

insure retention and graduation as well as honors classifications in the university and in individual programs;

- (6) if you are undecided about a major area, begin your program of studies with those courses required for all degrees.

After a major has been chosen:

- (1) consult with your advisor to determine what procedures are necessary to declare a major;
- (2) read the entire section of the *Catalog* which relates to the degree and major selected: note all degree requirements listed for the college such as the number of hours required within the college and outside the college and the number of upper division hours required; list all the general education courses required for the college or obtain a degree sheet from the college advisor; note the major requirements (when choices are allowed, be sure to consult with your major advisor);
- (3) plan your coursework semester by semester; try to complete all of your lower division courses (1000-2000) during your first two years (the four semesters of English required of all students are to be completed during the first four semesters); be sure to check for prerequisites before enrolling in any course, especially upper division courses; take the courses in the proper sequence.

To complete a 132 semester hour degree program in four years, you need to take 33 hours per year. The maximum allowed per semester (fall/spring) is 18 hours. Special permission must be received in order to carry more than 18 hours. Physical education activity courses are not included in the 18-hour maximum.

1. ADMISSION REQUIREMENTS

ADMISSION TO THE UNIVERSITY

Memphis State University offers equal educational opportunity to all persons without regard to race, religion, sex, creed, color, national origin or handicap. Inquiries about admission to any college of the University should be addressed to the Office of Admissions. This office receives and processes all applications, evaluates credentials, and issues notices of acceptance to qualified students. Undergraduate students may enter at the beginning of either of the regular semesters or at the beginning of any term of the summer session.

All applications must be accompanied by a five-dollar (\$5.00) non-refundable application fee. This fee is payable one time only regardless of the level for which the student is applying.

Certain instructional programs of the University are subject to special admission requirements and are subject to change due to the availability of institutional resources. Students wishing to enter one of these programs of study should check with the appropriate department or division offering the program in order to become familiar with these special requirements. Undergraduate programs with special admission requirements include professional degrees in art, music, or theatre (Bachelor of Fine Arts or Bachelor of Music), teacher certification, nursing, University College, and Nuclear Studies.

The applicant is advised to have all credentials on file well in advance (preferably thirty days) of the registration period for the term for which application is made. All credentials become the property of the University and cannot be forwarded or returned.

Credentials will be maintained in active files for a 12 month period. After this period, credentials will be relegated to inactive status and must be submitted again before an admission decision can be made.

Regulations in this section are subject to change without notice.

ADMISSION AS REGULAR UNDERGRADUATES

Freshmen Applicants

The established deadlines for submitting applications for admission are: August 1 for the fall semester; December 1 for the spring semester, and May 1 for the summer session. Applications received

after these deadlines will be considered only for one of the special categories listed later in this section.

An applicant who has *no* previous college enrollment may qualify for admission as a freshman by meeting the following requirements:

1. HIGH SCHOOL GRADUATION

A. By a transcript of credits showing graduation from an approved or accredited high school. Graduates of an unapproved or a non-accredited high school must take the General Educational Development test and earn an average standard score of at least 45. This GED requirement is waived for students who earn the minimum ACT required for guaranteed admission. Students who do not present one unit of American History are required to register for the course during their first or second year at the University.

B. By General Educational Development Test. Applicants 18 years of age or older who are not high school graduates may satisfy the graduation requirement by submitting G.E.D. scores averaging 45 or more. Testing may be arranged by contacting the local Board of Education.

2. ENTRANCE EXAMINATIONS

Applicants must submit acceptable scores earned on the test administered by the American College Testing Program. These scores may be furnished by your high school or directly from the testing agency. (American College Testing Program, P.O. Box 414, Iowa City, Iowa, 52243) Applicants who have been out of high school for a period of six months or more are eligible to take an admission test administered by Memphis State University. Students are urged to visit or telephone the Office of Admissions (prior to or after making application) for additional information or clarification of test score requirements. Special testing arrangements may be made for handicapped persons by contacting the Testing Center or by telephoning (901) 454-2428. NOTE: In cases involving the availability of the ACT or the timeliness of a test administration, the SAT may be considered.

The Admission Requirements are as follow:

A. Guaranteed Admission

Minimum ACT composite score of 18 OR a 3.0 cumulative grade point average on a 4.0 scale from an accredited or approved high school.

B. Reviewed by Committee

Applicants with an ACT composite score of 16 or 17 OR at least 2.0 cumulative high school grade point average on a 4.0 scale will be considered for admission by committee. Applicants who fall into this category should also submit the following:

(1) Personal Statement: a letter written by the applicant to the committee including the following — (a) an outline of activities in high school and extra curricular activities (employment, etc.), (b) personal interests, and (c) reason applicant wants to attend college and specifically Memphis State University.

(2) Recommendations from at least one of the following: counselor, principal, or teacher.

C. Special Circumstances

Applicants with special talents or circumstances who do not meet requirements for guaranteed admission or for committee review may be considered. For further information contact the Office of Admissions (901) 454-2390.

NOTE: Admission of out-of-state applicants is competitive with the most qualified gaining acceptance.

3. AGE

An applicant must be at least 16 years of age.

Transfer Applicants

An applicant who has attended any accredited college or university must apply as a transfer student. The established deadlines for applying are August 1 for the fall semester, December 1 for the spring semester, and May 1 for the summer session. The applicant must request that a transcript from each college attended be sent directly to the Office of Admissions. Concealment of previous college attendance may be cause for rejection or cancellation of admission.

Admission will be granted only to an applicant who has honorable dismissal from an accredited institution and whose

cumulative quality point average (QPA) meets the required minimum QPA established by the Tennessee State Board of Regents. See the *Academic Regulations* section for the listing of minimum QPA requirements.

Transfer applicants who have been suspended from another college or university for the term immediately preceding their intended term of entry at Memphis State University will not be eligible for admission for at least one regular semester, not including the summer session.

Transfer applicants with less than 15 semester hours must meet the admission requirements for Freshmen Applicants. Those applicants not meeting the State Board of Regents standards must submit acceptable ACT or SAT scores or take an examination administered by Memphis State University and earn an acceptable score.

Transfer applicants who qualify and are approved for admission will be entered on *academic probation* if (1) not in good standing at the last school attended or (2) the quality point average is below the minimum requirements listed in the retention scale. Credit awarded for transfer work is discussed under the heading, *Additional Means for Earning Credit*, in the *Academic Regulations* section.

A transfer applicant who is denied admission should contact the transfer affairs section of the Office of Admissions to discuss any alternatives to or the possibilities for attending Memphis State University in the future (901) 454-2111.

International Students

Memphis State University believes that the presence of a balanced representation of international students on campus will enrich the educational environment of all students. Based on this, the University is authorized under federal law to enroll non-immigrant, alien students on "F-1" student visas. Applicants must file complete credentials before May 1 for fall admission; September 15 for spring admission; or February 1 for summer admission. Complete credentials include all the documents listed below under requirements.

The application should be completed carefully and returned to the Office of Admissions, Memphis State University, Memphis, Tennessee, 38152, U.S.A. Applications and fees received after the stated deadlines will be returned.

A non-refundable application and processing fee of \$30.00 (thirty dollars) is required of every international applicant, unless previously paid. A check or money order, made payable to Memphis State University, must be sent with the appli-

cation form. Applications received without the fee will be returned.

International applicants should write to the Office of Admissions for information on application procedures, qualifications, and admission to the University. Since there is considerable variation among educational systems throughout the world, international applicants will be selected on a competitive basis; after meeting the minimum standards of admission using examination scores, grade point average, relevance of academic background to intended major field of study and recommendations from the World Survey of Education. The University often receives more applications than can be approved; therefore, admission cannot be granted to all applicants who meet only the minimum requirements.

Since the enrollment of international students is based on a global sampling and representation, priority will be given to applicants with exceptional credentials who will be attending a university in the United States for the first time.

All transcripts, test scores, and other credentials must be accompanied by an official English translation of these documents and must be on file in the Office of Admissions by the stated deadlines prior to the beginning of registration for the intended term of entry.

REQUIREMENTS

- Educational Background:** List on the form provided by the University every school attended, beginning with primary school, to the present, including each primary, secondary, and post secondary institution.
- Required Transcripts:** The applicant must arrange for the Office of Admissions to receive official copies of academic records from the applicant's attendance at secondary school, college, university, and professional institutions of learning. These transcripts must be sent directly from the high school or college to Memphis State University. An exception is made for those who hold the bachelor's degree or its equivalent in that they need not send their secondary school records. Records should list the subjects studied and the grade, mark, or other evidence that each individual subject was completed to the satisfaction of the authorities in charge. If it is impossible for the school to send us an official copy, certified copies by an official at the American Embassy or a known world organization may be acceptable. All records must be in English. Since certificates and records filed for examination are not ordinarily returned, the applicant should send certified photostatic copies if the documents in question cannot be easily replaced.
- Required Test of All Applicants:** All applicants whose native language is not English must supply results of the Test of English as a Foreign Language (TOEFL) or its equivalent. TOEFL information may be obtained by writing, TOEFL, Educational Testing Service, Princeton, New Jersey, 08540, U.S.A. All test scores must be sent directly from the testing agency to Memphis State University.
- Freshman Test Required:** Applicants to the first year undergraduate level must submit scores on the Scholastic Aptitude Test (SAT) or the American College Testing Program (ACT). These tests are available only in English. For information on the SAT, write to College Entrance Examination Board, Box 592, Princeton, New Jersey, 08540, U.S.A. For information on the ACT, write to American College Testing Program, P.O. Box 414, Iowa City, Iowa, 52243, U.S.A. All test scores must be sent directly from the testing agency to Memphis State University.
- Financial Statement:** U.S. visa regulations require that certification of admission be based on both academic acceptance and satisfactory evidence of adequate funds to meet the expenses involved in the student's program of study. An applicant on an "F-1" student visa must supply, on the form provided by the University, sufficient evidence of financial support for the applicant and all members of his/her family who will accompany the applicant to Memphis. This requires that the applicant certify that his/her intent is to attend the University full-time and that no employment will be required.
- If transferring from an American college or university, a personnel evaluation form must be completed by the last school attended and returned to the Memphis State University Dean of Students Office. This form will be sent to the applicant upon receipt of the application.
- Send two recent passport size photos of yourself to the Office of Admissions, Memphis State University, Memphis, Tennessee, 38152, U.S.A.

- Health Certificate Required:** Each international student, within 30 days from the first day of classes, must submit a certificate from a licensed U.S. physician or other qualified U.S. medical authority verifying freedom from tuberculosis. Failure to do so shall result in denial of enrollment. In the event that the student either has tuberculosis or has potential tuberculosis requiring medical treatment, continued enrollment will be conditioned upon the determination by a licensed U.S. physician that such enrollment does not present a risk to others and upon the student's compliance with any prescribed medical treatment program.
- All international students must purchase health insurance before they are allowed to enroll.
- English Placement Examination:** All international applicants who are accepted must take an English placement examination, administered by the English Department, prior to enrollment. Placement in an English class will be determined by the results of this examination. International students should arrange to be on campus approximately one week prior to registration for the proposed term of entry.
- International students will not normally be allowed to register as transient students during summer sessions. Exceptions may be granted only in cases where a student has an outstanding record and unusual circumstances are present.
- International students who wish to apply for readmission to the University must meet the deadlines stated above.
- The international student must become familiar with the regulation of the Immigration and Naturalization Service and assume responsibility for complying with these regulations.

SPECIAL CATEGORY APPLICANTS

Applicants who wish to apply in one of the special categories listed below are encouraged to apply by the deadlines as stated for Regular Undergraduates. Applications will be accepted until the first day of registration for the term for which the student is applying. Special category students who have attended other colleges will not have their previous college work evaluated for transfer until such time as they have been approved for admission as regular undergraduates. An applicant who has applied as a regular undergraduate and failed to meet admission requirements must wait one regular semester or six months before applying for admission in any special category.

Special Undergraduate Applicants

An applicant who has earned a baccalaureate degree from an accredited institution who desires to take only a limited number of undergraduate courses and who is not presently working toward a degree at Memphis State University may be admitted as a Special Undergraduate Student by providing proof of the degree held and the date it was earned.

Unclassified Applicants

An applicant who wishes to enter the University and earn a limited amount of regular college credit may do so by applying for admission as an unclassified student and meeting one of the two conditions listed below:

- A student who has not attended another college or university must provide proof of high school graduation or the equivalent or be at least 18 years of age.
NOTE: Due to present enrollment limitations, those applicants under age 21 who complete their high school work during the calendar year in which they seek admission will not be considered in the unclassified category. These applicants must apply as regular undergraduate freshmen.

- A student currently/previously enrolled in an accredited college or university must submit evidence of eligibility to reenroll at that school. Clearance will be for one term only. Subsequent enrollment will require an application for readmission.

NOTE: Transient students should apply in the unclassified category.

Those who are admitted as unclassified students are initially assigned to the Academic Counseling Unit for advising. Students in this category may not take more than 18 semester hours of work in a single term nor may they earn more than 24 semester hours total, unless they have enrolled as a regular student in another college since last attending Memphis State.

The unclassified student may, at any time within the stated deadlines, apply to the Office of Admissions for reclassification as a regular student, effective at the beginning of the next regular semester. Admission procedure and requirements are the same as those for regular undergraduate applicants. The entrance examination requirement may be satisfied by earning a cumulative QPA of 2.00 which must include 12 semester hours or more of non-activity courses at Memphis State. After the student is admitted as a regular undergraduate, any credit that may have been earned as an unclassified student will apply toward degree programs in the college from which a degree is sought as outlined in the *Colleges and Degree Programs* section.

Concurrent Enrollment

Outstanding high school students who have completed the junior year may be admitted and register for one college course per term of enrollment concurrently during their senior year provided the following criteria are met:

- The applicant must be at least 16 years of age before the end of the calendar year in which the applicant desires to enroll.
- A minimum high school cumulative grade point average of 3.00 on a 4.00 scale.
- An ACT composite score of 20 or above.
- A recommendation from the applicant's high school principal or guidance counselor.
- Any other admission criteria established by the department which offers the course selected by the applicant.
- The course taken must be outside the established school day.

Early Admission

Academically outstanding high school juniors who have completed three academic years of high school and accumulated at least 14 units of course work may be considered for early admission if they meet the following requirements:

- Applicants must be at least 16 years of age.
- A minimum high school cumulative grade point average of 3.5 on a 4.00 scale.
- A minimum ACT composite score of 25.
- Written recommendations from high school principal and guidance counselor.
- An interview with MSU faculty/staff committee selecting early admission students. Applicants and their parents or guardians should attend.
- Enrollment in freshman English.
- Enrollment in American history and economics unless successfully completed in high school.
NOTE: The early admission applicants should also check with their high school for specific graduation requirements.

Audit Students

Persons who are not enrolled for credit courses may register for audit courses

with the approval of the Office of Admissions and the appropriate department chairman. These students must have the equivalent of high school graduation or be at least 18 years of age. Clearance will be for one term only. Subsequent enrollment will require an application for readmission. Persons suffering from a permanent disability which totally incapacitates such person from working at an occupation which brings an income, and persons sixty years of age or older, who are domiciled in Tennessee, may audit courses at Memphis State without paying tuition charges, maintenance fees, student activity fees, or registration fees. Admission to audit will be limited on an individual classroom basis according to space availability.

Former Students (Readmission)

Former students who wish to return to the University in the same category as

when they previously attended or in any special category must file an application for readmission. This form should be secured, completed, and returned to the Records Office. If the student has enrolled at another college since last attending Memphis State University, a transcript must be forwarded to the Admissions Office. An applicant will receive favorable consideration only if eligible for readmission under all University regulations, including the quality point average for transfer students. (NOTE: International students who wish to apply for readmission to the University must meet the deadlines for new admission for international students.)

Mini College

Mini College is a special entry/re-entry program for adults who are entering college for the first time, or for those who

are returning after being out of school for any number of years. It is designed to familiarize the non-traditional student with the academic programs and services available and to provide individual assistance in the admissions and registration procedure.

Each fall and spring semester, Mini College offers a schedule of basic, entry level credit courses and a special registration during the two weeks prior to the beginning of classes. Most classes meet just once a week and are scheduled at convenient times, both day and evening, for the part-time student. Admission requirements are the same as those for the undergraduate application categories described earlier in this section.

A student electing to take Mini College courses will receive regular credit and will attend classes with other returning adult students. For further information, contact the Mini College Office (901) 454-2995.

2. EXPENSES AND AID

FEES AND CHARGES

The information in this section concerning tuition, fees, deposits, etc., is applicable only to students enrolled in the undergraduate colleges and departments of the University. Similar information for students in The Graduate School and The School of Law is available in the catalogs of those schools.

The listing of any fee or incidental charge in this catalog does not constitute a contract between the University and the student. **Because of rapidly changing conditions it may become necessary to alter a fee structure before the next edition of the Catalog is published.** As a condition of registration each student will pay the fees in effect at the time of registration.

GENERAL APPLICATION AND REGISTRATION FEE INFORMATION

APPLICATION FEE: Each student submitting an application for admission to the University must pay, at the time of submitting the first application, a one-time, non-refundable fee of \$5.00.

PAYMENT OF FEES AND DEBTS: All fees are payable at the time of registration; the University has no deferred fee payment arrangements. Fees may be paid through the use of Visa or MasterCard cards if the card is issued to the student, student's spouse, or student's parents. Former students with outstanding financial obligations to the University cannot be re-enrolled until the obligations are paid.

MAINTENANCE FEE: All students, whether in-state or out-of state, pay a maintenance fee. Undergraduate fees are \$35.00 per semester hour, not to exceed a maximum of \$416.00. Students paying the fee for six or more hours are entitled to admission to home athletic events and certain health services, concerts, plays, social and other student-sponsored activities, and a subscription to the student newspaper, *The Helmsman*.

Fees payable are based on the course level, and the maximum fees will be the graduate maximum if a student is enrolled for any graduate hours.

The summer session consists of two separate terms of approximately six weeks each, plus an extended term for specified courses. Fees for the summer session are determined solely on a semester hour basis. The semester hour charge is \$35.00 for maintenance fees and an additional \$76.00 for out-of-state tuition.

Fees for audits will be assessed on the same basis as fees for credit courses. Courses offered between terms, for concentrated periods during a term, or at specific locations, may be subject to fees on a per-hour basis only.

The University will usually collect the amount of fees due based on a manual calculation at the time of registration; amounts collected are applied to total fees due, in accordance with fee rates in effect. After all enrollments are complete, a computerized calculation of fees due will be made based on actual course enrollments and residency classification. Any over-collections will be refunded, and students will be billed for any under-collections.

TUITION: Students classified as out-of-state are charged an additional \$879.00 per semester for full-time students or \$76.00 per semester hour for part-time students. Thus, an out-of-state full-time student is charged \$1295.00. An out-of-state student who is enrolled part-time is charged \$111.00 per semester hour.

The Office of Admissions and Records is charged with the responsibility of assigning a residency classification to each student using regulations provided by the Board of Regents. The student may appeal the decision to the Committee on Residency. Residency regulations of the Board of Regents and information on

appeals procedures are available in the Office of Admissions and Records.

TOTALLY DISABLED PERSONS AND PERSONS OVER 60 YEARS OF AGE:

Persons suffering from a permanent disability which totally incapacitates such persons from working at an occupation which brings them an income, and persons who will become 60 years of age or older during the academic semester in which such persons begin classes, and who are domiciled in Tennessee, may AUDIT courses at Memphis State University without paying tuition charges, maintenance fees, student activity fees, or registration fees. Admission to AUDIT will be limited on an individual classroom basis according to space availability.

Any person who is totally disabled, and persons who will become 65 years of age or older during the academic semester in which they begin classes, and who are domiciled in Tennessee, may enroll for courses for credit at the cost of \$17.50 per undergraduate semester hour, or \$24.00 per graduate semester hour, not to exceed \$75.00 per semester. The University Health Services shall examine certification of permanent disability (not the applicant) and determine the eligibility of the applicant under this legislation.

Inquiries concerning these programs may be addressed to the Records Office, Administration Building, Room 115, or telephone 454-2671.

REFUND OF FEES (MAINTENANCE FEES, OUT-OF-STATE TUITION, MUSIC FEES): The following refund percentages apply to students who withdraw from the University or who drop to an hourly load below full-time:

1. **100% Refund:** A full (100%) refund of fees will be made for courses cancelled by the University. Fees paid for second summer term courses dropped on or before the course adjustment day are also refunded in full.
2. **75% Refund:** The University provides a 75% refund of enrollment fees beginning at the moment of registration and extending for a period of time as noted in the term calendar for the semester.
3. **25% Refund:** A 25% refund of enrollment fees is provided after the expiration of the 75% refund period and concludes as noted in the term calendar for each semester.
4. **100% refund** in case of death.

If a student withdraws during the 75% period, all of the student activity fee is refundable. There is no refund of the student activity fee after this period.

The University refund policy is based entirely upon the official date of the withdrawal or change of course which would result in a refund. Refunds beyond the specified date or percentage cannot be made for reasons such as employment conflicts, health or medical problems, moving out of town, or other reasons which are beyond the University's control or responsibility.

Note: The dates for these refund periods are found in the term calendar in the *Schedule of Classes*. The refund period ends earlier than the final deadline for dropping a course or withdrawal. Refunds will be processed beginning approximately two and one-half weeks after classes begin and usually should be completed five weeks after classes begin.

STUDENT HOUSING

RESIDENCE HALLS: Charges for rooms in University residence halls are indicated below.

APPLICATION PROCEDURES: Applications for residence hall space may be obtained from the Office of Residence Life, M.S.U., Memphis, Tennessee, 38152. Because spaces are allocated by date of receipt, completed applications accompanied by the required \$100 application/security deposit should be returned to the Office of Residence Life as soon as possible. Checks or money orders should be made payable to Memphis State University; please do not send cash.

Receipt by the Office of Residence Life of the housing application and \$100 check or money order, however, does not guarantee admission to the University or to a residence hall. THE DIRECTOR OF RESIDENCE LIFE RESERVES THE RIGHT TO REFUSE ANY HOUSING APPLICATION, TO CHANGE OR CANCEL ANY ASSIGNMENT, OR TO TERMINATE A RESIDENT'S OCCUPANCY, FOR JUSTIFIABLE CAUSE.

CONTRACT PERIOD AND CONDITIONS: Fall assignments/contracts are for the full academic year (fall and spring semesters). Fall residents wishing to petition for release from their contract for the spring semester must do so in writing by the second Friday in November. Residents who cancel after this date, but prior to claiming their key for the spring semester, will forfeit 50% of their application/security deposit. Residents who fail to cancel by 4:30 P.M. on the *first* day of undergraduate registration will forfeit the entire deposit. The application/security deposit, once submitted with the application, covers the student's initial term of occupancy and all subsequent terms of occupancy and continues until such time as it is cancelled in writing. There will be no penalty if written cancellation is received prior to the published deadline for any specific contract period.

CANCELLATION POLICY: Full deposit and pre-payment of rent will be refunded if: (1) the institution is notified a minimum of 30 calendar days prior to the first official day of registration for the first semester in which the contract is in force, (2) the student is prevented from entering the University because of personal medical reasons confirmed in writing by a licensed physician, (3) residence hall space is not available, or (4) the student is denied admittance or readmittance to the University. Full refund will be made in the case of death. **NO REFUNDS WILL BE MADE FOR OTHER THAN THE ABOVE CONDITIONS.**

New applicants who fail to cancel by the deadline referred to in (1) above *but* before 4:30 P.M. on the *first* day of undergraduate registration (NO SHOW DATE) will forfeit 50% of their deposit, but will not be subject to any other penalties. New applicants who fail to cancel by 4:30

P.M. on the second day of undergraduate registration will forfeit their entire deposit. (This is applicable to both the fall and spring semesters.)

REFUND OF RESIDENCE HALL RENT: Refunds of residence hall rent after registration will be pro-rated on a weekly calendar basis when the student is forced to withdraw from the residence halls (1) because of personal medical reasons confirmed in writing by a licensed physician or (2) at the request of the institution for other than disciplinary reasons. Full refund will be made in the case of death.

For reasons other than the above stated, the following procedure shall apply: 75% of fees will be refunded for withdrawal from the residence halls for a period of 14 calendar days beginning with and inclusive of the first official day of classes or within an equivalent period for a short-term course; 25% of fees will be refunded following expiration of the 75% period, for a period of time extending 25% of the time covered by the term. **NO REFUNDS WILL BE MADE FOR OTHER THAN THE ABOVE CONDITIONS.**

Dormitory	Type Room	Semester Rate***
Browning	Double	\$360
	Single	510
Hayden	Double	415
	Single	555
McCord	Double	405
	Single	550
Mynders	Double*	430
	Small	
	Single*	575
	Middle	
	Single*	610
	Large	
Newport	Single*	635
	Large	
	Single**	675
Rawls	Double*	510
	Single*	685
Richardson Towers	Double	465
	Single	630
Robison	Double*	510
	Single*	685
Smith	Double	465
	Single	630
West	Double	405
	Single	500
	Double	405
	Single	550

*Semi-Private Bath

**Private Bath

***Fees quoted are for 1983-84 Academic Year and are subject to change.

STUDENT FAMILY HOUSING: The University has 126 apartments for married students located on South Campus, approximately one mile from the central part of the campus. There are 70 two-bedroom and 56 one-bedroom apartments. All apartments are furnished with electric stove, refrigerator, carpeting, and garbage disposals. The monthly rental rates are as follows: one-bedroom apartment, \$190; two-bedroom apartment, \$215. Electrical utilities are paid by the tenant.

Application forms may be obtained from the Office of Residence Life in Room 108, Jones Hall, Main Campus. A \$100 deposit is required when the application is submitted.

MISCELLANEOUS FEES

ADDING AND DROPPING COURSES:

A fee of \$5.00 will be charged for each change of course form processed, regardless of the number of course or section changes included on the form.

AIR FORCE ROTC DEPOSIT: A uniform deposit of \$10.00 is required of each student who enrolls in the Air Force ROTC program. The uniform deposit, less charges for uniform loss or damage, will be refunded at the end of the academic year or at the beginning of a semester in which the student is not enrolled in the ROTC program.

AUTOMOBILE REGISTRATION: Each person who expects to operate and park any motor vehicle on the campus must pay \$5.00 for an official permit, valid from September through August, and register the vehicle in the Security Office (Room 151, Administration Building). A reduced fee of \$4.00 is charged for vehicle registrations after January 1, and \$2.00 after May 1. Residence hall occupants should ask for a special resident decal when registering their automobiles.

CREDIT BY EXAMINATION OR PLACEMENT EXAMINATION: The fee for taking an examination for credit is \$45.00 minimum and an additional \$15.00 for each credit hour over three; this fee must be paid prior to the examination. The same fee must be paid when an application for credit is made under the Credit by Placement Examination policy.

DIPLOMA FEE: Each candidate for a degree from Memphis State University pays a \$25.00 fee to cover cost of the diploma, rental of cap and gown, and incidentals connected with the commencement exercises. This fee must be paid thirty days before graduation.

EXPERIENTIAL LEARNING CREDIT FEES: Students who wish to apply for credit for experiential learning will pay \$15.00 per credit hour granted after evaluation of their learning and assignment of credit. For those students who are enrolled under a *group contract*, a maximum fee of \$90.00 will be assessed for credits assigned under the terms of the contract.

Currently the University College, the College of Communication and Fine Arts, and the Herff College of Engineering (Trade and Industrial Vocational Technical Education majors) award credit for experiential learning. See "University College Fees" and "Commercial Music Fees" for related fee information.

IDENTIFICATION CARDS: The University issues to each student an identification card which bears the student's photograph, social security number, and certification of enrollment as a student in the University. The card remains the property of Memphis State University.

Inquiries about student identification cards should be made in the Office of the

Assistant Dean of Students. The card, with the current validation decal, is required for the borrowing of library books, admission to or approval to pick up or purchase student tickets to athletic and social events, the sale of used textbooks, and other official purposes. The card is also required to gain admission to the Registration Center each registration period.

Part-time students who are enrolled for at least six semester hours of credit courses will be given full-time I.D. card validation.

The I.D. card is renewed during registration of each semester the student is enrolled. The summer sessions are considered as a semester.

If an I.D. card is lost or stolen, the student has twenty-four hours to file the proper report with the Assistant Dean of Students and/or the Security Office. In all cases, a student will be required to have a replacement card made. The replacement fee is \$10.00 for a card that has been damaged, stolen, or lost. A student will be charged a \$2.00 fee to make any change in data on the card.

The card, as part of the withdrawal procedure, must be presented to the proper official before withdrawal from the University can be considered complete.

Fraudulent use of the I.D. card will result in disciplinary action. The card is issued to the individual student and must not be loaned to another person for any reason.

LABORATORY DEPOSITS: Certain courses in chemistry require breakage deposits from \$10.00 to \$20.00 per semester, depending upon the course. Any unused portion of these deposits will be refunded.

LATE REGISTRATION: Students who do not complete registration (including the payment of fees) during the official registration period will be charged \$10.00 for any late registration following the official registration period.

MEALS: The University cafeterias, student centers and vending areas, open to all students, provide wholesome food at reasonable prices. Cost of meals per student is estimated at \$6.00 to \$7.25 per day.

MUSIC FEES:

COMMERCIAL MUSIC: Students who wish to apply for credit for experiential learning in Commercial Music may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. A non-refundable \$25.00 contract advising fee will be charged for the assessment of the portfolio. See "Experiential Learning Credit Fees" for related fee information.

COURSES IN APPLIED MUSIC: The fee for applied music shall be \$30.00 per semester for each one-half hour lesson.

MUSIC LOCKER DEPOSIT: Music students are required to have a locker for storage of University-owned musical

instruments or equipment. Personal instruments may also be stored in lockers. A deposit of \$3.00 for one semester or \$4.00 for two semesters is required on each locker issued. This deposit, less a service charge of \$1.50 per semester, will be refunded upon return of the lock. Students will be expected to pay for any damages.

PHYSICAL EDUCATION LOCKER AND TOWEL FEE: Students enrolled in physical education courses must pay a fee of \$4.00 for the locker and towel issued them. Students must provide their own lock.

RETURNED CHECKS: It is expected that a check given the University, for any reason, will clear the bank on which it is drawn. If a check given in payment of registration fees is returned, the fees are considered unpaid, and unless the student then pays the fees and a late registration fee in cash, the student is considered no longer enrolled for that term. A \$10.00 service charge will be assessed for each returned check whether given in payment of any fee or cashed by the University for the convenience of the student. Check cashing privileges will be revoked for any student who has had checks returned by his bank more than once within a twelve-month period.

STUDENT ACTIVITY FEE: All students enrolled for one credit hour or more will pay a \$1.00 student activity fee. The amount is \$1.00 regardless of the total number of hours for which the student is enrolled. There is no activity fee during the summer terms.

TRANSCRIPTS: There is no fee for transcripts. However, the student will be charged \$1.00 for each official transcript over the maximum of five (5) per request. Transcripts are issued only at the request of the student in person or by letter. No transcript will be provided for a student who has any unfulfilled obligations to the University.

UNIVERSITY COLLEGE FEES: In addition to their \$5.00 application fee, students who apply to the University College must pay a screening fee of \$15.00, which is non-refundable. If accepted into the University College, the student must pay a non-refundable contract-advising fee of \$25.00.

SUMMARY OF EXPENSES

	Per Hour (Summer and Part-Time)	Fall and Spring Semester Per Semester (Full Time)
Undergraduate:		
In-State Maintenance	\$35.00	\$416.00
Out-of-State Tuition	76.00	879.00
Out-of-State Total	\$111.00	\$1295.00

Student Housing:
(see listing earlier in this section)

Applied Music Courses:
(see information earlier in this section)

Incidental Charges:	
Activity Fee	\$1.00
Adding or dropping courses, per form	5.00
Application for admission, first application	5.00
Automobile Registration, per automobile	5.00
Diploma, payable once	25.00
Late Registration after official registration period	10.00
Transcripts, per copy after first five copies per request	1.00
School and College Ability Test	5.00
Residual American College Test	8.00
Orientation Services (New Student Orientation)	
P.E. locker and towel, per semester	10.00
	4.00

Deposits:	
Air Force ROTC Uniform (refundable less charges for loss or damage)	\$10.00
Dormitory Rooms refundable less charges, upon termination of occupancy	100.00
Laboratory breakage (refundable less charges)	Variable
Music locker deposit, per year	4.00

Additional Charges
The University reserves the right to increase the charges listed herein or to add new ones whenever such increases or additions are found to be necessary.

APPEAL PROCEDURES

APPEAL PROCEDURES FOR FEES AND REFUNDS:

A student may appeal the assessment, application, calculation or interpretation of any University fee, charge, deposit, or refund, or any University action connected with fees and charges. Questions should generally be discussed with personnel in the Bursar's Office. If a student is not satisfied with the resolution made by the Bursar's Office, a written appeal, on forms available in the Bursar's Office, can be made to the Director of Finance; this determination may be appealed to the Vice President for Business and Finance; and this determination may be appealed to the President of the University. Traffic fines are subject to a separate appeal procedure.

STUDENT AID

The University Student Financial Aid Office provides financial assistance for students in the form of scholarships and grants, loans and student employment. This office counsels with students about college expenses and financial aid opportunities. A detailed listing of all policies, rules, regulations, selection processes, and other information pertaining to governance of student aid programs is available in the Student Aid Office.

Satisfactory Progress Policy

All students who receive financial aid must be working toward a degree and comply with all institutional, state, and federal policies and standards applying to financial aid programs. In order to assure that student aid recipients make progress toward that degree, both in terms of the number of hours completed and the cumulative GPA, Memphis State University will utilize the following Satisfactory Progress Policy.

Progress Standards

1. **Course Completion Progress:** Students must, as a minimum, complete the requirements of 75% of the cumulative hours for which they receive financial aid payment.
2. **Cumulative Progress:** Students, in addition to the above, must meet the academic retention standards of Memphis State University.
3. **Term Progress:** Any student who has a GPA of 0.0 for any term will be placed on Financial Aid Probation.
4. **Withdrawal:** Any student who withdraws will be placed on Financial Aid Probation.
5. **Transfer Students:** Transfer students must complete 75% of the course requirements for which they received financial aid payment during their last term of enrollment, or they must have met the requirements of satisfactory financial aid progress at the previous institution.

Financial Aid Probation

1. Students will be placed on Financial Aid Probation for their next term of enrollment if they fail to meet any standard as outlined above for any term.
2. A student who is placed on academic probation is automatically on Financial Aid Probation.

Removal from Probation

A student will be removed from Financial Aid Probation at the end of the probation term if he/she satisfactorily completes the term and meets the requirements of Progress Standards.

Removal from Financial Aid

1. A student on Financial Aid Probation who fails to meet the standards of progress in the probation term of enrollment will not be able to receive additional financial aid until such time as he/she meets the standards for removal from Financial Aid Probation.
2. Any student who has a GPA of 0.0 for the second time will be removed from financial aid for one term of enrollment.
3. Any student who withdraws for the second time from the University will be removed from financial aid. A third withdrawal will result in the student's being permanently removed from financial aid.

Administrative Appeals

Students placed on Financial Aid Probation or removed from financial aid can appeal that decision to the Director of Student Aid. The appeal must be prepared in writing and be accompanied by appropriate support documents. If not satisfied with the decision of the Director, any student can take the appeal to the Associate Dean for Student Development. Any subsequent appeal may be made to the Vice President for Student Educational Services and the President of Memphis State University. Reasons that may be acceptable for the appeal are:

1. Serious illness or accident to the student. This will normally require a medical statement from a physician.
2. Death, serious illness, or injury in the immediate family (parent, children, spouse). A physician's statement or appropriate death certificate will be required.
3. Administrative errors by Memphis State University.
4. Other extenuating circumstances may be acceptable and will be considered.

Policies and Conditions of Student Aid Awards

All awards are subject to the following conditions:

1. The Student Aid Office reserves the right to review/cancel awards due to changes in financial circumstances, academic standing, enrollment status, program status, failure to observe standards of citizenship and failure to meet the requirements of satisfactory academic progress.

2. All awards are tentative, subject to:
 - a. Legislative appropriation and receipt of funds by Memphis State University.
 - b. Student's full-time enrollment (except in cases of Pell Grant Awards) in a regular degree program: 12 hours per semester for undergraduates and 9 hours per semester for graduate and law.
 - c. Student's meeting and maintaining federal, state and institutional program requirements.
 - d. Student's notification of the Student Aid Office if outside loans or scholarships are received.
3. Alumni Scholarship recipients must maintain a 3.0 overall GPA. State Board Scholarship recipients must maintain a 2.8 overall GPA and must follow guidelines given at the time of registration.
4. Students receiving financial aid who withdraw or drop below full-time enrollment from the University must notify the Student Aid Office.
5. All awards (loans, scholarships and grants) administered by the University are subject to the University's Refund Policy and the Student Aid Refund/Repayment Policy.
6. College Work Study awards do not pay tuition/dorm fees. College Work Study is a part-time job; students should not expect to study during work hours. Students should report to the Student Aid Office the week before registration or during registration for job placement. Students must enroll full-time and maintain full-time enrollment status.
7. Students receiving loans are required to attend an initial interview according to instructions given prior to registration. All loan recipients must have an exit interview prior to leaving the University.
8. All award recipients (scholarships, loans, grants, and College Work Study) must reapply by April 1 of each year. It is the student's responsibility to secure and complete the appropriate application materials.
9. Loan, grant and scholarship awards are disbursed in one-half amounts at the Grant and Loan Station in the Registration Center during EACH registration, fall and spring. Remember, College Work Study is NOT disbursed to aid in payment of initial semester fees.
10. Students who receive grants, loans and scholarships and fail to enroll for the required number of hours will be subject to penalty and in some circumstances subject to criminal prosecution.

Student Aid Refund Repayment Policy

The formula prescribing the amount of Title IV funds to be refunded to Title IV accounts has been established by federal regulations. The policy is: Title IV funds disbursed for the payment period (excluding CWSP)/Total aid disbursed including Title IV funds but excluding CWSP X MSU. Federal regulations stipulate that each institution shall develop written policies to determine which Title IV Program(s) will receive the refund or repayment.

REFUND:

1. When a refund is due a student and Title IV funds are involved and the financial aid awarded is equal to or in excess of the amount of the student's full tuition/maintenance fees, the Student Aid Office will determine according to the federal formula the portion of federal aid funds to be returned to the federal aid account. The refund amount will be placed in the respective aid account(s) in the same proportion as the aid awarded.

2. When a refund is due a student and Title IV funds are involved and the financial aid awarded is less than the amount of the tuition/maintenance fees paid by the student, the Student Aid Office will determine what portion of the refund should be returned to the student based upon the following formula: Amount of tuition/maintenance fees paid divided by the total amount of tuition/maintenance fees times the MSU computed refund equals the amount returned to the student. The remainder of the refund will then be distributed according to the required federal formula and the procedures outlined in 1 above.

3. Refunds applicable to non-Title IV funds will be distributed to the respective aid account in the same proportion as the aid awarded.

4. A 100% refund will be given in the event of death.

REPAYMENT:

When a student receives financial aid and one of the following situations occur: (a) the student is issued a contingency fee card which is not honored by the fund agency involved, (b) the student receives an overpayment due to non-eligibility or administrative error, (c) the student withdraws prior to the start of classes or fails to pay tuition/maintenance fees, the student must repay the total amount of aid received or overpaid.

3. ACADEMIC REGULATIONS, HONORS AND AWARDS

ORIENTATION, ADVISING AND REGISTRATION

The academic year consists of two semesters: the fall semester beginning in late August or early September and ending in December; the spring semester beginning in January and ending in May. A summer session is held between the end of the spring semester and the beginning of the fall semester of the next academic year.

An orientation and academic advising program for all new freshmen is held during the summer preceding fall registration. The sessions are conducted in order to acquaint entering students with various programs of study, general University regulations, and registration procedures. Students are assigned advisors who aid them in selecting appropriate courses. **Assistance from the advisor, however, does not relieve the student of the responsibility of studying the Catalog and fulfilling all of the requirements therein for the specific degree program being pursued.** It is expected that the student will consult with the dean of the college in regard to the fulfilling of the requirements for the chosen degree. This should be accomplished no later than the time the student has attained senior standing.

The *Schedule of Classes*, published a few weeks before the beginning of each semester and available from the Office of the Dean of Admissions and Records, contains a detailed outline of the registration procedure and course changes and additions made since the publication of the *Catalog*. Students are urged to study these schedules carefully and to keep them available for immediate reference during the registration period and throughout the semester. All students are expected to register on the dates indicated in the calendar. Although registration is permitted after these dates, a late registration fee is charged, and there is no reduction in other fees.

In no case is credit allowed in any course for which the student is not duly registered and which is not properly entered on the official registration material. Registration is not complete until all fees for the semester have been paid.

APPEALS

A student has the right to appeal decisions made by University officials in

the implementation of University policy. If a student feels that individual circumstances warrant an appeal, the request for appeal must be filed in the University office responsible for the implementation of that policy or the office specified in the policy statement.

CLASS ATTENDANCE

Class attendance may be used in computing grades at the discretion of the instructor. If attendance is to be used, a complete written statement of the instructor's policy detailing the weight of attendance in determining the final grade must be presented to all students present at the first and second meetings of the class.

A student who is absent from the final examination without the permission of the teacher incurs a grade of F on the examination and may, depending on the weight of the examination in determining the final grade, incur a grade of F for the course.

Adding and Dropping Courses

After the official registration period is over, students may make adjustments in schedule through the process of adding and/or dropping courses. Courses may be added only during the first five days of classes in the fall and spring semesters and the first two days in each of the summer terms. Courses dropped during this same period will not be shown on the student's permanent record. Courses dropped **after** the period to add classes will be indicated on the record as dropped. A student may drop any course or courses up through the date specified in the University Calendar for that term. (The University Calendar is located in the front of this *Catalog*.) Exceptions are made only on the basis of such unusual circumstances as serious personal illness, relocation because of employment, et cetera. A fee is charged for courses added or dropped. See *Fees and Charges*. To stop attending a class without officially dropping the course incurs the grade of F.

Withdrawal From University

Any student who wishes to officially withdraw from the University must do so in person through the Center for Student Development. Students must complete an application for withdrawal and present

for invalidation their student identification card at the time of withdrawal. Failure to officially withdraw will result in grades of F for the courses in which the student is enrolled. Students enrolled in evening classes withdraw in the Evening Academic Services Office. Students enrolled in The Graduate School should report their withdrawals to the office of the Dean of The Graduate School.

Withdrawal is not permitted after the date specified in the University Calendar for that term. Exceptions are made to this policy only in cases of such extreme circumstances as serious personal illness, relocation because of employment, et cetera.

CLASSIFICATION OF STUDENTS

Classification of students is based on the number of credit hours earned as shown in the table below.

Classification	Semester Hours
Freshman	0-24
Sophomore	25-54
Junior	55-84
Senior	85 or more
Special	Students not working on a degree

Students who have completed the required number of hours to be classified as juniors but who have not completed their basic requirements in the Lower Division should schedule these uncompleted requirements during the first semester following in which such courses are available in order to avoid a possible delay in graduation.

Credit Hours and Maximum Load

The unit of credit at Memphis State University is the semester hour; a semester hour is defined as the credit earned for the successful completion of one hour per week in class for one semester; or two hours per week of laboratory for one semester. (A course which gives three semester hours credit will normally meet for three lecture or recitation hours per week; or for two lecture or recitation hours and two laboratory hours per week; or for some other combination of these.) Each lecture hour presupposes a minimum of two hours preparation on the part of the student.

The minimum credit hour load for classification as a full-time student and the maximum loads are found in the table below. The maximum credit hour load includes all course enrollments for any term, both at Memphis State University and any concurrent enrollment at other institutions. It does not include credit by examination. No student is permitted to enroll for correspondence or extension courses while carrying a maximum credit hour load.

ACADEMIC FULL-TIME CLASSIFICATION AND MAXIMUM LOAD

Term	Minimum Hours	Maximum Hours
Fall or Spring	12	*18
First or Second Summer	4	8
Extended Summer only	8	16
Extended and First or Second	8	11
Extended and First and Second	9	16

*This includes neither the required physical education activity course nor Applied Music Workshop (MUAP 1000). A student who has a B (3.0) average or better for a semester may, with the permission of the dean of the college from which the student is seeking a degree, schedule a maximum of twenty-one hours for the following semester.

NOTE: ID card validation of full-time for student activity purposes is based on a minimum of six credit hours per semester and does not necessarily constitute a full-time academic load.

The maximum course load for any combination of concurrent summer terms is eleven semester hours. The student's course load for the entire summer session may not exceed 16 semester hours. (This may differ from requirements for the Veterans Administration. Questions should be directed to the Coordinator of Veterans Services.)

SCHOLASTIC STANDARDS

Grades and Quality Points

GRADES

At the end of each semester or summer term, instructors report to the Records Office the standing of all students in their classes. The grade of a student in any course is determined by class standing and examination, combined in such proportion as the instructor in charge of the course may decide. Class standing in any course is determined by the quality of the student's work and the thoroughness of preparation.

The instructor's evaluation of the student's work is expressed by the following grades which are converted to quality points for the purpose of averaging grades.

Grade	Quality Points	Grade	Quality Points
A, Excellent	4	T (See below)	0
B, Good	3	CR, Credit	0
C, Satisfactory	2	DP, Drop	0
D, Poor	1	W, Withdrew	0
F, Failure	0	AD, Audit	0
I, Incomplete	0	*S, Satisfactory	0
		*U, Unsatisfactory	0

*The S/U grade is limited to certain types of courses such as practicums, practice teaching, etc. The IP (In Progress) notation may also be used in certain research courses to allow students time to complete research projects. These grades are only awarded for those undergraduate courses for which it is indicated in the course descriptions.

All courses for which the student is registered are recorded as passed (with a letter grade), "T", failed, dropped, withdrew, credit, satisfactory, unsatisfactory, or incomplete. In no case is credit allowed in any course for which the student is not duly registered and which is not properly entered on the official registration card.

Grade of Incomplete

The grade of I (incomplete) indicates that the student has not completed the course for some unavoidable reason that is acceptable to the instructor. Unless the student completes the requirements for removal of "I" within forty-five days from the end of the semester or summer session in which it was received, the grade of "I" will be changed to an F, regardless of whether the student is enrolled or not. Extensions may be granted if the instructor's temporary absence from the campus makes it impossible for the student to remove the incomplete or other circumstances acceptable to the instructor. *Grades of incomplete earned during the student's semester of proposed graduation will delay the student's graduation until the end of the semester during which the incomplete is removed.*

All grades, with the exception of "I," when reported, can be changed only by the instructor who reported them and then only after approval by the Admissions and Records Committee. There is a Grade Appeals procedure described below.

"T" Grade

In order that students may be permitted to complete independent studies courses in variable time periods which might exceed a regular enrollment period, the "T" grade has been introduced. The following procedure governs the use of the "T" grade:

1. Prior to the registration period, the professor obtains approval of the chairman and dean to use the "T" grade in a course(s).
2. The dean notifies the Records Office of courses for which the "T" grade may be awarded.
3. At the end of the regular term, the faculty member has the following options:
 - a. Award grades A-F.
 - b. Award an "I" grade if the faculty member feels that the work can be completed in 45 days. (If an "I" grade is awarded, a runner with the student's name on it will be sent to the faculty member at the end of 45 days. The faculty member *must* record either an A-F or the "T" grade to prevent an automatic assignment of "F".)
 - c. Award a "T" grade. If the "T" grade is awarded, the student must re-register for the course in order to earn credit. The "T" grade is not used in the computation of QPA.

Repetition of Courses

A student may repeat most courses in an attempt to improve the grade previously earned. There are some courses which may not be repeated for this purpose. Information concerning these courses

may be obtained from the office of the chairman of the department in which the course is offered.

A student may not attempt the same course more than three times for the purpose of obtaining a passing grade or higher grade. Exceptions to this limitation may be made by the dean of the college from which the student intends to graduate. These exceptions must be approved prior to the student's registration for the fourth and any subsequent attempts of the same course.

The student's quality point average will be computed as follows:

Attempt	Grade(s) Included In Computation
1st	Original grade earned
2nd	Only grade in 2nd attempt
3rd	Only grade in 3rd attempt
4th and subsequent	Grade earned in 3rd attempt averaged with grade(s) earned in ALL subsequent attempts

The record will continue to reflect all grades earned in the same course.

Audit Courses

Students who are registered for one or more classes at Memphis State University may also register to audit a course with the approval of their advisor and the chairman of the department in which the course will be offered. Students enrolled for credit courses may take no more than one audit course per semester.

Auditors are not required to prepare lessons or papers, or take examinations. They are not to take part in class discussions or laboratory or field work. Students auditing a course will receive "audit" on the transcript only if in the judgment of the instructor they have attended a sufficient number of classes to deserve the notation on the transcript. Faculty will base their decisions for awarding "audit" only on attendance as the student is not allowed by policy to participate in any other way.

Persons who are not enrolled for credit courses may register for a maximum of three audit courses with the approval of the Dean of Admissions and Records and the department chairman. These persons must have graduated from high school or be 18 years of age or older. A student may not change from a grade point basis to audit or from audit to a grade point basis after the last day to add classes for that term. Fees for audits will be assessed on the same basis as fees for credit courses.

Credit/No-Credit Courses

The University, wishing to encourage mature students to broaden their range of interest without jeopardizing their grades, allows students who have earned at least 60 semester hours with a minimum grade point average of 3.0 to enroll in credit/no-credit courses as determined by their college. The student is limited to one course per term and may not accumulate

more than 12 semester hours on a credit/no-credit basis. (In most cases, Physical Education Activity courses are exempted from these requirements. See *Graduation from the University*.) A student who transfers from one college to another should be aware that credit/no-credit hours may be acceptable in one and not in another. A student may apply to take, on a credit/no-credit basis, a course which has previously been taken for a grade. In every instance, approval to register for a course on a credit/no-credit basis must be obtained from the advisor and the dean of the student's degree granting college. Credit hours earned on a credit/no-credit basis will be accepted toward degrees within the following limitations:

The College of Arts and Sciences accepts hours earned on a credit/no-credit basis in any course which is not required for the student's degree.

The Fogelman College of Business and Economics accepts hours earned on a credit/no-credit basis only in courses which are designated as electives in the student's degree program.

The College of Communication and Fine Arts accepts hours earned on a credit/no-credit basis in any course which is not required for the student's major.

The College of Education accepts hours earned on a credit/no-credit basis in any course which is not required for the student's major, professional education requirements and endorsement requirements.

The College of Engineering accepts hours earned on a credit/no-credit basis in any course which is not specifically required for the student's degree.

The University College accepts hours earned on a credit/no-credit basis in any course not required for a student's Coordinated Study Program.

A student who registers for a course on a credit/no-credit basis may change the registration to a letter grade-quality point basis only during the add period, and a student who registers for a course on a letter grade-quality point basis may change the registration to a credit/no-credit basis only during the add period. A student making such a change will be charged as if dropping and adding a course. The student who successfully completes a credit/no-credit course will receive the appropriate number of hours as credit toward graduation. These hours will not be used in the computation of the quality point average.

Student Grade Appeal Procedure

This appeal procedure is designed to provide any undergraduate or graduate student at Memphis State University with a clearly defined avenue for appealing the assignment of a course grade which the student believes was based on prejudice, discrimination, arbitrary or capricious action, or other reasons not related to academic performance. *In all cases the complaining student shall have the burden of proof with respect to the allegations in the complaint and in the request for a hearing.* If any party fails to pursue timely any step of the procedure, the disposition of the student's complaint made in the last previous step shall be final. The procedure will be terminated at the level at which the instructor and the student are brought into agreement on the

appealed grade. All correspondence and records will be retained in the office in which the complaint is finally resolved.

Step 1 The student shall first consult with the instructor in an effort to provide a satisfactory resolution of the complaint. In the event the student cannot schedule a meeting with the instructor, the student may contact the department chairman who will schedule the meeting between the student and the instructor. The only exception to this procedure is the case where the instructor has been terminated by the University or is unavailable so that it is impossible to complete Step 1 within the allotted forty-five days. In this case the student may proceed directly to Step 2.

Step 2 If the complaint is not resolved in Step 1, the student may present the complaint in writing to the chairman of the department in which the course was offered within *forty-five days* from the end of the term during which the grade was received. For the purposes of the grade appeal procedure, all summer sessions collectively will constitute a single term. (Students enrolled in courses during any summer term shall have forty-five days following the end of the *last* summer term in which to file a grade appeal.) The department chairman will attempt to resolve the complaint in consultation with the instructor and the student within a *fifteen-day* period dating from the formal presentation of the written complaint. The department chairman may, at his/her discretion, counsel with the faculty of the department.

If the department chairman was the instructor of the course involved in the complaint or if for any reason the chairman disqualifies him/herself, the written complaint of the student shall be submitted to the dean of the college.

The student's grade may be changed in Step 2 of the appeal procedure by the written consent of the instructor and the student.

Step 3 If the complaint cannot be resolved at the level of Step 2 within the prescribed fifteen-day time period, the student within *five days* following the end of such period, may request in writing that the chairman forward the complaint to the dean. The chairman must forward the student's complaint to the dean within *five days*. The chairman will provide the dean with a copy of all correspondence and records pertaining to the complaint.

The dean may utilize any resources available to the dean's office to resolve the grade conflict within a *fifteen-day* period. The dean's decision in this matter will be formally announced at a meeting of the dean, the chairman, the instructor, and the student. If the dean and chairman are in agreement that the grade should be changed, either raised or lowered, the dean shall be empowered to change the grade without the instructor's consent. Otherwise the grade shall remain as recorded.

Either the student or the instructor may appeal the decision made under Step 3 within *fifteen days* by filing a written request for a hearing before the University Grade Appeals Committee. In the event of such an appeal the decision shall be stayed pending the completion of the procedure in Step 4. The dean must be provided a copy of the hearing request.

Step 4 The written request for a hearing before the University Grade Appeals Committee should state the factual basis for the appeal of the dean's decision. If the committee finds the student's or the instructor's request merits a hearing, the committee shall notify the student, the instructor, the chairman and the dean of the time and location of the hearing. If the committee finds that the request does not merit a hearing, the student and the instructor shall be so notified.

The University Grade Appeals Committee shall function as a review board. Based on its appeal review process, the committee shall make the final decision unless there is an appeal of the committee's decision, by either party, to the Vice President for Academic Affairs for final determination. The committee shall have the power to allow the assigned grade to stand or to raise or lower the assigned grade. Its decision must be formally announced to all parties. The time schedule allotted for completion of action by the committee shall be *fifteen days*.

The University Grade Appeals Committee shall be composed of seven members and seven alternates constituted as follows:

A chairman designated by the Vice President for Academic Affairs, a faculty member and alternate designated by the dean of the college involved, two faculty members and two alternates elected by the Academic Senate, three students and three alternates selected through the Student Government Association.

Although the primary responsibility of the committee is to review appeals, the committee will report any obvious discriminatory or capricious conduct on the part of either the student or the instructor to the appropriate Vice President for his consideration and action.

QUALITY POINTS

In computing a student's scholarship ratio, or quality point average, all courses attempted are included except credit-no-credit, audit, incomplete, and satisfactory-unsatisfactory courses and "T" grades. As an example: a student carrying five three-semester-hour courses for a total of 15 semester hours makes the following grades: A, B, C, T, F; thus accumulating quality points in the amount of 12, 9, 6, 0, 0, for a total of 27. In computing the quality point average, the number of hours attempted (except "T" grade) (12) is divided into the quality points earned (27) for an average of 2.25.

Graduation: A minimum of 2.0 quality point average on all work attempted is required for graduation.

Academic Fresh Start

An ACADEMIC FRESH START allowing calculation of quality point average and credit hours toward graduation to be based only on work done after returning to college is provided for undergraduate students who have gained maturity through extended experience outside higher education institutions and have demonstrated better than average academic performance following their return. Requirements to be satisfied by a student requesting an Academic Fresh Start toward a baccalaureate degree are as follow:

1. Separation from all academic institutions for at least seven years.
2. After returning to college, completion of at least 36 semester hours of earned graded course work prior to application for ACADEMIC FRESH START.
3. QPA of at least 2.5 for all work attempted after returning to college and at the time of application.
4. Formal application to the dean of the student's college, requesting that an ACADEMIC FRESH START be granted and describing an academic plan which may include the declaration of a major.

Upon approval of the college dean, the student will be granted an Academic Fresh Start. It may be granted once. The student's permanent record will remain a record of *all* work; however, the student will forfeit the use for degree purposes at Memphis State any college or university credit earned prior to the seven-year separation indicated above. The date of the fresh start will coincide with the date of re-entry following prolonged separation, and the permanent record will note that a fresh start was made and the date of the fresh start. The record will also carry the notation, "QPA and credit totals are based only on work beginning with that date."

ACADEMIC STATUS AND RETENTION

At Memphis State University, the academic status of a student is denoted by one of three conditions:

- (1) GOOD STANDING
- (2) ACADEMIC PROBATION
- (3) ACADEMIC SUSPENSION

Official notification of academic status is by means of the grade report processed to each student at the end of the regular semester or summer session. The academic status of probation or suspension will be stated at the end of the report of grades. Policies and procedures related to each of these conditions are outlined in the following comments.

Good Standing

Students are in good standing so long as their quality point average is equal to the minimum cumulative QPA required on the sliding retention scale as defined in this policy statement. The term *good standing* indicates only that the student is meeting the minimum standard for retention in the University. However, in order to meet graduation requirements, the student must have a cumulative QPA of 2.0. Any time that a student's cumulative QPA falls below this 2.0, a warning is printed on the grade report, and the student should consult immediately with the academic advisor.

Academic Probation

A student will be placed on academic probation at the completion of any regular semester or summer session when the student's cumulative QPA falls below the following:

HOURS ATTEMPTED	MINIMUM QPA
14.99 or less	No minimum
15.00—29.99	1.40
30.00—50.99	1.70
51.00—67.99	1.90
68 and above	2.00

A student on academic probation who withdraws from the University during the first probationary semester will be "continued on academic probation." Withdrawal by such a student from any subsequent probationary semester will be treated as an academic suspension requiring clearance from the Academic Status and Retention Office for any future registration.

Academic Suspension

A student on academic probation who, at the end of the following term of enrollment, fails to raise his/her QPA to at least the required minimum on the Sliding Scale Retention Policy above will be suspended. There is one exception to this policy: a student on academic probation will not be suspended at the end of any semester or summer session during which a term average of 2.00 has been earned.

(1) A student who incurs a first suspension must remain out of the University a **minimum** of one regular semester (fall or spring).

(2) A student who incurs a second suspension must remain out of the University a **minimum** of one calendar year.

(3) A student who incurs a third suspension must remain out of the University a **minimum** of three calendar years.

(4) A student who has been readmitted following a third suspension and who then fails to meet the retention standards is ineligible for further enrollment at Memphis State University.

(5) Former Memphis State University undergraduate students on academic suspension will be readmitted under the retention policy in effect their last semester at Memphis State University. However, upon re-enrollment, their academic status will be determined by the Academic Retention Policy in effect in the current *University Bulletin*.

The University office responsible for the administration of this policy is the Academic Status and Retention Office (Room 167, Administration Building).

Recognition for Academic Performance

There are several means available by which students may obtain recognition for outstanding academic performance. In addition to those listed below, there are other honors and awards listed in the descriptions of the various honors programs.

THE DEAN'S LIST

The Dean's List is composed of those students who meet *one* of the following criteria:

1. Completion of 6-8 graded hours in a semester with a semester quality point average of 4.00.
2. Completion of 9-11 graded hours in a semester with a semester quality point average of 3.66 or above.
3. Completion of 12 or more graded hours in a semester with a semester quality point average of 3.50 or above.

The courses used to meet both the number of hours and the quality point average criteria may not include courses which are being repeated for the purpose of improving a grade previously earned.

GRADUATION WITH DISTINCTION

Students who meet the requirements described below are eligible to graduate *cum laude*, *magna cum laude*, or *summa cum laude*:

1. Fulfillment of graduation requirements
- *2. Completion of a minimum of fifty (50) graded semester hours at Memphis State prior to graduation
3. Final cumulative quality point averages as follow:

<i>Cum Laude</i>	3.2500 — 3.4999
<i>Magna Cum Laude</i>	3.5000 — 3.7999
<i>Summa Cum Laude</i>	3.8000 — 4.0000

*Recognition of graduation with distinction at commencement ceremonies will be based on the completion of a minimum of forty-five (45) graded semester hours at Memphis State prior to the final semester. (During the final semester, the student must also be enrolled for a sufficient number of hours to complete the required minimum of fifty.) This recognition is *not* an actual conferral of distinction.

A transfer student, in order to be eligible must have made the required average on all work taken at Memphis State University and must, in addition, have an over-all average which meets the honors requirements above. In no instance may the QPA used for determining graduation with distinction be higher than that earned on courses taken at Memphis State University.

A student who already holds a baccalaureate degree is eligible for these distinctions if the requirements above are met and if, within the hours presented to fulfill the requirements for the second degree, at least forty-five additional graded hours have been taken at Memphis State University subsequent to the award of the first degree. (These hours would be for *new* courses, *not* courses repeated for a higher grade.) The QPA used for determination of distinction for the second degree will be calculated from *all* undergraduate courses taken.

Either the complete set of requirements governing graduation with distinction in the current catalog or the complete set in the *Catalog* governing the degree requirements for the student's graduation may be used to determine honors.

HONOR SOCIETIES

Alpha Epsilon Delta, international pre-medical honor society

Alpha Kappa Delta, the national honorary society in sociology

Alpha Lambda Delta, a national honor society for freshman students

Beta Beta Beta, national honor society in biology

Beta Gamma Sigma, the national honor society for business majors

Chi Beta Phi, a national science and mathematics honorary society

Dobro Slovo, an honor society organized to further the study of Slavic literature

Gamma Beta Phi, an honor and service society

Honors Students Association, an organization for University Honors students

Gamma Theta Upsilon, a national honorary society for geography students

Golden Key National Honor Society, a national interdisciplinary honor society for academically outstanding juniors and seniors

Kappa Delta Pi, a national honor society in education

Kappa Omicron Phi, a national honor society for home economics students

Kappa Tau Alpha, a national honor society for journalism and mass communications juniors and seniors

Liberal Arts Honor Society, a local academic honor association founded by Phi Beta Kappa faculty members

Mortor Board, a national honor society established to provide for cooperation among honor societies for senior women

Omicron Delta Epsilon, an international economic honor society

Omicron Delta Kappa, the National Leadership and Scholarship Honor Society

Phi Alpha Theta, the national honor society in history.

Phi Eta Sigma, a national freshman honor society

Phi Kappa Phi, a national interdisciplinary honor society

Pi Delta Pi, a society to recognize outstanding scholarship in French language and literature

Pi Kappa Lambda, a society for music education students

Pi Sigma Alpha, the national honor society in political science

Psi Chi, the national honor society in psychology

Sigma Delta Pi, the national Spanish honor society

Sigma Pi Sigma, a national honor society for physics students

Sigma Tau Delta, a national honor society for English language and literature students

Tau Alpha Pi, a national honor society for engineering technology students

Tau Beta Pi, a national engineering academic honor society

Who's Who Among Students in American Universities and Colleges, one of the highest honors that a student may receive at Memphis State University.

HONOR, RECOGNITION, AND PROFESSIONAL ORGANIZATIONS

Memphis State University is proud to have many national honor and recognition societies devoted to encouraging high standards of scholarship, leadership, and professional competence. These societies, through their programs and professional activities, provide an additional aspect of student development which would not ordinarily be obtained. Detailed information concerning these societies, including requirements for membership, purposes, and specific activities, can be found in the *Student Handbook*, from sponsoring university departments and in the Office of Student Organizations, 454-2093.

Honors and Awards

THE COLLEGE OF ARTS AND SCIENCES

THE BETA BETA BETA AWARD is annually presented to the graduating senior and member of the Society who graduates with the highest grade point average in biology

THE AMERICAN INSTITUTE OF CHEMISTRY AWARD is presented to the graduating chemistry major who best demonstrates leadership, ability, character and scholastic ability.

THE DEPARTMENT OF ENGLISH offers several awards:

a. The Distinguished Scholarship Award presented each year to the English major whose work demonstrates an unusually high order of academic excellence.

b. Honors Thesis Award presented in recognition of the outstanding honors thesis submitted during the previous academic year by a student in the English Honors Program.

c. Freshman Writing Awards. Presented for creative excellence shown by freshman writers of essays, poetry, and fiction.

FRENCH GOVERNMENT ASSISTANTSHIPS: The French Government through the French Embassy in The United States, on the recommendation of the French Section of the Department of Foreign Languages, awards each year one or more assistantships in France for the teaching of English in secondary schools.

DEPARTMENT OF GEOGRAPHY presents each year the Paul H. Sisco Award to the outstanding senior geography major.

THE DEPARTMENT OF HISTORY annually presents the Tennessee Historical Commission Award to that senior student of history judged by the faculty to be the outstanding history major

THE DEPARTMENT OF PHILOSOPHY OUTSTANDING STUDENT AWARD is presented to that student of philosophy chosen on the basis of high scholastic achievement, papers written, and performance in senior honors seminars.

THE DEPARTMENT OF POLITICAL SCIENCE presents the Outstanding Student Award each year to the graduating senior majoring in political science who has compiled the best record of academic achievement in the discipline.

THE DEPARTMENT OF PSYCHOLOGY sponsors the Undergraduate Research Festival Awards based on fine papers, each reporting on a research project originated and conducted by an undergraduate student in psychology.

THE DEPARTMENT OF SOCIOLOGY annually presents The Outstanding Student Award to the senior student judged to be the outstanding sociology major. Also, the **DIVISION OF SOCIAL WORK** presents the Graduate with Distinction Award to the graduate who has been selected for dedication, achievement, and potential for professional service.

ALPHA EPSILON DELTA, pre-medicine and allied health professions honor society, annually presents the Student of the Year Award to the member who has demonstrated outstanding leadership, loyalty and responsibility.

CHI BETA PHI SCIENCE AWARDS: The student who has attained the highest academic average during his four years of study in each of the following disciplines: Biology, Chemistry, Geology, Mathematical Sciences, Physics, and Psychology is honored by having his/her name inscribed on a plaque.

THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS

THE TENNESSEE SOCIETY OF CERTIFIED PUBLIC ACCOUNTANTS AWARD, Memphis Chapter, is presented annually to the graduating student who has the highest overall scholastic average among all accountancy majors.

THE MEMPHIS CHAPTER OF THE SOCIETY OF CHARTERED PROPERTY CASUALTY UNDERWRITERS annually awards a check and a plaque to the outstanding student in the field of insurance.

SOCIETY FOR ADVANCEMENT OF MANAGEMENT SCHOLARSHIP is annually awarded to that member of SAM who has served the society in an exemplary manner and demonstrated leadership in the field of management.

THE NATIONAL BUSINESS EDUCATION ASSOCIATION annually awards a certificate of merit, a one-year subscription to the N.B.E.A. Forum magazine, and a one-year membership card in the Association to the outstanding graduating senior who has majored in the field of business education.

PHI GAMMA NU, professional sorority in business, each year presents a scholarship key to the woman business graduate who has maintained the highest scholastic average in The Fogelman College of Business and Economics.

DELTA SIGMA PI, international business fraternity, annually awards a scholarship key to the man in The Fogelman College of Business and Economics graduating with the highest academic average in business.

THE COLLEGE OF COMMUNICATION AND FINE ARTS

DEAN'S ACADEMIC ACHIEVEMENT AWARD is available to a student majoring in a discipline within the College of Communication and Fine Arts. It recognizes the graduating student with the highest grade point average.

DEAN'S CREATIVE ACHIEVEMENT AWARD is based on outstanding creative activity in the areas encompassed by the College of Communication and Fine Arts.

SIGMA DELTA CHI CITATION, Memphis Chapter, annually presents a certificate of achievement to the student chosen as outstanding in the field of journalism.

SOCIETY OF PROFESSIONAL JOURNALISTS, SIGMA DELTA CHI MARK OF EXCELLENCE AWARDS, Arkansas, Louisiana, Mississippi, West Tennessee Region, annually presents first place awards for Best TV Broadcasting, Best Editorial Cartoon, Best Feature Article, and Best Photography Feature.

SIGMA ALPHA IOTA COLLEGE HONOR AWARD annually presents an award based on musicianship, scholarship, and general contribution to the Collegiate Chapter.

SIGMA ALPHA IOTA HONOR CERTIFICATE is presented annually to the music major graduating with the highest academic average.

PAUL EAHEART MEMPHIS WOODWIND QUINTET SCHOLARSHIP is presented in honor of Paul Eaheart for excellence in wind performance.

NAOMI C. HAIMSOHN AWARDS IN CLASSICAL MUSIC COMPOSITION are presented annually to the graduate student and the undergraduate student who are judged to have written the best compositions for that year.

HERMANN PIANO AWARD is presented annually in memory of Professor Herbert Hermann for excellence in piano performance.

LUBRANI CLARINET AWARD, in memory of Professor Frederic Lubrani, is presented for performance ability, general scholarship, service to the Music Department, and potential in the profession.

SMIT COMPOSITION AWARD is presented in memory of Professor Johannes Smit for excellence in composition.

HEARST AWARDS are presented as the result of an annual national writing and photography competition among accredited journalism programs for work appearing in student publications. Cash prizes range from \$200 to \$2,000 with matching awards going to sponsoring journalism departments.

THE COLLEGE OF EDUCATION

THE DEPARTMENT OF DISTRIBUTIVE EDUCATION OUTSTANDING SENIOR AWARD is presented each year to the graduating senior in the department with the highest academic average.

DECA SERVICE AWARD is presented annually to the senior majoring in distributive education who has made the most outstanding contribution to the Memphis State Chapter.

ELEANOR MAE FERGUSON AWARD is presented each year to the outstanding junior or senior woman physical education major who displays strong leadership, outstanding character, high scholarship and an active role in departmental and campus activities.

DEPARTMENT OF FOUNDATIONS OF EDUCATION OUTSTANDING GRADUATE STUDENT AWARD is annually presented to the most outstanding student based on scholarship, accomplished or planned research, teaching competency or professional involvement, and faculty rating.

RALPH HATLEY, SR. AWARD is presented to the outstanding junior or senior male physical education major who displays strong leadership, outstanding character, high scholarship and an active role in departmental and campus activities.

OUTSTANDING STUDENT IN RECREATION AND PARKS AWARD is presented in recognition of meritorious scholarship, leadership, and service to the University, the community, and the profession.

DEPARTMENT OF SPECIAL EDUCATION AND REHABILITATION OUTSTANDING STUDENT AWARD is annually presented by the Student Council for Exceptional Children to the outstanding student majoring in the department who displays strong leadership, outstanding character, scholarship and an active role in departmental and campus activities.

KAPPA DELTA PI AWARDS: Junior Academic Award is presented to the outstanding junior in The College of Education, Senior Academic Achievement Award is presented to the outstanding senior enrolled in The College of Education.

KAPPA OMICRON PHI AWARD is presented to a junior or senior member of Kappa Omicron Phi in recognition based on leadership, scholarship, and service.

MEMPHIS EDUCATION ASSOCIATION AWARD is presented each year to the graduating senior who, having graduated from the Memphis City Schools System and completed all college level work in a teacher education program at the University, has attained the highest grade point average of the students in this category.

HEBER E. RUMBLE, OUTSTANDING STUDENT TEACHER AWARD is presented each year to the student whose performance in student teaching is judged to be the most outstanding.

DEAN'S AWARD IN THE COLLEGE OF EDUCATION is presented on the basis of scholarship, professionalism, leadership, and service to the College of Education, the University, and/or professional organizations.

THE HERFF COLLEGE OF ENGINEERING

OUTSTANDING SENIOR AWARDS in the College of Engineering are presented to the outstanding senior in each of the five departments: Civil Engineering, Electrical Engineering, Mechanical Engineering, Geology, and Engineering Technology based on scholarship, leadership and service.

OUTSTANDING STUDENT MEMBER OF IEEE is presented an award by The Institute of Electrical and Electronics Engineers, student chapter.

ENGINEERING TECHNOLOGY SOCIETY AWARD is annually presented to the outstanding student by the student chapter.

AMERICAN INSTITUTE OF ARCHITECTS presents annually the outstanding achievement award.

ASSOCIATED GENERAL CONTRACTORS AWARD is presented annually by the student chapter for outstanding achievement.

ENGINEERING DEAN'S AWARD is presented annually to the graduating student who has compiled the highest academic achievement in the college.

UNIVERSITY COLLEGE

DISTINGUISHED SPECIAL PROJECT AWARD is presented to each student whose special project has been judged outstanding by the Faculty Council of University College

DEPARTMENT OF AEROSPACE STUDIES

LEGION OF VALOR BRONZE CROSS OF ACHIEVEMENT recognizes one outstanding Air Force ROTC senior cadet in the Ohio Valley for performance and achievements as an AFROTC cadet.

THE PRESIDENT'S AWARD IS PRESENTED annually to the MSU Freshman or Sophomore AFROTC cadet who has demonstrated outstanding attributes of leadership and high moral character. Selection is made by AFROTC with final approval by the University President.

ANGEL OF THE YEAR AWARD is presented to the member of Angel Flight who has given the most in service to the campus and the community.

ARNOLD OF THE YEAR AWARD is presented to the member of Arnold Air Society who has given the most in service to the campus and the community.

ARMED FORCES COMMUNICATION AND ELECTRONICS ASSOCIATION AWARD recognizes an outstanding senior AFROTC cadet completing a degree in electronics, communications, electrical engineering, mathematics, or computer systems technology, who demonstrates outstanding leadership and academic achievement.

SPECIAL AWARDS

MARIA LEONARD SCHOLARSHIP AWARD is presented annually by Alpha Lambda Delta, national scholastic honor society, to the senior member of the society with the highest academic average.

GOLDEN KEY NATIONAL HONOR SOCIETY presents annually two scholarships to junior and senior members of the local chapter who have excelled in scholarship, leadership and participation in activities.

PHI KAPPA PHI SCHOLARSHIP AWARDS are presented annually to several members of the society who graduate with the highest academic average.

THE INTERFRATERNITY COUNCIL SCHOLARSHIPS of \$200 each are awarded annually to the pledge/associate from the previous fall or spring semester who attained the highest grade point average; and, to the fraternity member with the highest grade point average over the past two consecutive semesters.

THE PANHELLENIC COUNCIL annually awards two \$200 scholarships to the sophomore and the junior sorority members who have attained the highest scholastic average. In addition a Pledge Scholarship in the amount of her sorority's initiation fee is awarded to the fall semester pledge who attained the highest average for the semester.

WOMEN'S INTERCOLLEGIATE ATHLETICS SCHOLAR AWARD is presented annually to the woman athlete who has maintained the highest grade point average while at the University.

THE ELMA ROANE OUTSTANDING WOMAN ATHLETE AWARD is presented to the junior or senior woman athlete who best exemplifies the following qualities: drive, enthusiasm, determination, concern for others, the love for athletics, maturity, involvement in campus activities, and self-discipline in all aspects of life.

CAMPUS RECREATION AND INTRAMURALS AWARDS are presented annually to the intramural Greek, intramural Independent Resident, Panhellenic Manager of the Year; and to the Outstanding Official of the Year who show leadership and interest in the intramural program.

ADDITIONAL MEANS OF EARNING CREDIT

Advanced Standing Credit

Credit toward a degree will be accepted only from collegiate level institutions for courses which are substantially equivalent to those offered at Memphis State University. After the student has been approved for admission as a regular undergraduate, the Transfer Affairs Section of the Office of Admissions will evaluate credits for University-wide use. The Office of the Dean in each college has the authority for determining the use of acceptable credit toward specific degree programs in that college. (Also see Transfer Credit section below.)

In computing the scholarship ratio or quality point average of a student who has earned an associate degree from an institution with a grading practice which does not reflect failing grades, only those courses for which credit was granted will be used. A student who does not earn the associate degree prior to transfer or one who attends merely to take courses will have the quality point average computed using all courses attempted at that institution.

Transfer credit from colleges not accredited by the Tennessee State Board of Education and/or the Southern Association of Colleges and Secondary Schools (or corresponding agencies for other states and regions of the United States) will not be accepted toward a degree or toward teacher certification.

Credit for Service in the Armed Forces

Veterans who have completed one year or more of continuous full-time active military service will be excused from taking the required physical education activity courses. In addition, they will be allowed six semester hours of health and physical education credit upon presentation of a copy of their report of separation (DD Form 214) to the Admissions Office. The veteran may apply two additional semester hours credit in physical education activity courses (total applicable toward degrees not to exceed eight semester hours).

The Transfer Affairs Section of the Admissions Office should be consulted to determine whether additional credit may be allowed for courses offered through the Defense Activity for Non-Traditional Education Support (D.A.N.T.E.S.) or other service schools. The maximum amount of credit accepted for applicable D.A.N.T.E.S. courses and/or correspondence and extension courses is 33 semester hours, and 20 semester hours of lower division credit for selected service schools. (This restriction does not apply to credit accepted by the University College.) An official evaluation of service credit is not made until a student enrolls as a regular undergraduate student. Credit awarded for completion of selected service schools will be governed by the recommendations at the baccalaureate level as outlined in the current *Guide to the Evaluation of Educational Experience in the Armed Services*.

Noncollegiate Sponsored Instruction

Credit may be obtained for applicable courses completed through certain non-collegiate sponsored instruction as recommended in the current *A Guide to Educational Programs in Noncollegiate Organizations*. No more than 20 semester hours credit for service schools and/or noncollegiate sponsored programs will be allowed. The Transfer Affairs section of the Admissions Office should be contacted for further information.

Advanced Placement Credit

Memphis State University participates in the Advanced Placement Program of the College Entrance Examination Board. A maximum of 24 semester hours may be given to qualified students on the basis of the examinations conducted by the Board. To be eligible for credit, an entering

freshman must place in group three, four, or five of the CEEB Advanced Placement Tests. Information pertaining to approved scores and credit to be awarded may be obtained from the Transfer Affairs section of the Admissions Office.

Transfer Credit

After enrollment as regular undergraduate at Memphis State University, students should obtain prior approval from the dean of the college from which they are to graduate before taking a course at another institution for the purpose of meeting degree requirements at Memphis State University. The student who intends to take a course at another institution should consult with the Transfer Affairs section of the Admissions Office and obtain forms for use in securing the dean's approval. Courses taken without prior approval are subject to possible disapproval when they are presented for evaluation at Memphis State.

Before credit earned at another institution can be transferred and recorded on a permanent academic record, the student must have an official transcript mailed to the Admissions Office and must contact the college dean's office to make arrangements to have credit posted to the academic record.

The maximum credit hour load allowed for any term includes all course enrollments both at Memphis State University and any concurrent enrollment at other institutions. (See "Credit Hours and Maximum Load.")

Correspondence or Extension Credit

Memphis State University accepts a limited number of credits earned by correspondence and/or extension, provided that such credits are taken from an institution which is a member of the University Extension Association, or the appropriate regional accrediting association. Memphis State University offers some work by extension but none by correspondence.

Prior to a student's initial registration at Memphis State University as a regular undergraduate, the Office of the Dean of Admissions and Records will, at the time the student applies for admission, determine the acceptability of extension and/or correspondence credits earned at other institutions. After the student has been admitted as a regular undergraduate, whether a beginning freshman or a transfer student, credit applicable to any Memphis State University degree will not be given for subsequent correspondence or extension courses unless written permission from the dean of the degree granting college is obtained prior to enrollment in such courses.

No student is permitted to enroll for correspondence or extension courses while carrying a maximum load at Memphis State University. Not more than

one-fourth of the semester hours applied on the bachelor's degrees may be earned by correspondence or extension or a combination of the two. (This restriction does not apply to degree programs of the University College.)

A student who has completed thirty-three of the last sixty-six hours required residence and who lacks *no more* than four semester hours toward completion of degree requirements may earn these additional credits by acceptable correspondence or extension work, or by residence at another approved institution. (For details of residence requirements, see *Graduation from the University*.)

University Credit by Examination

Students may not take an examination for credit in any course previously taken for credit. Students may, however, take an examination for credit in courses which were audited or in courses which are at a lower level than a course which was taken for credit.

CLEP EXAMINATIONS

CLEP is a national program of credit-by-examination, sponsored by the College Entrance Examination Board. It offers students the opportunity to obtain recognition for college-level achievement. Some departments accept CLEP subject area examination credits as equivalent to departmental courses. No credit will be awarded for CLEP general examinations. Information on courses for which CLEP credit is available, along with information of fees charged, is available from the Academic Counseling Unit, the college level advisors, or the specific departments offering CLEP credits.

DEPARTMENTAL EXAMINATIONS

Almost all courses in the undergraduate curricula, except for those of laboratory, research, and performance variety, are available for credit by examination. Students who believe they have already mastered the material of a particular course offered at Memphis State may take a departmentally administered examination for credit in that course. Students should consult the department chairman to make application and to obtain information concerning the courses offered.

The following regulations govern the granting of credit by examination:

1. Any student who has been admitted to Memphis State University—full-time, part-time, or extension—may make application to take an examination for credit. A student who has been admitted but has not yet registered for courses at Memphis State University will have any credit earned by examination posted to the permanent record after enrollment. Any student (other than first-time freshmen) must have a 2.0 QPA to apply for credit by examination.
2. Permission to take a credit examination must be obtained from the chairman of the department in which credit is sought and from the dean of the college in which the student is seeking a degree. When permission is granted and after payment of the cost of the examination, the Dean of Admissions and Records will issue an official permit for the examination. (See *Fees and Charges*).
3. The form of the examination, the method of administering it, and the time of examination are left to the discretion of departments.
4. To receive credit, the student's examination grade should be a grade equivalent of at least a C. There are no restrictions governing the number of credit hours which may be earned through credit by examination. Credit is indicated on the student's record as Cr.

CREDIT BY PLACEMENT EXAMINATION

In departments in which placement examinations are given, a student may elect to receive credit for certain sequential courses numbered lower than the course in which the student was placed.

1. A student may take the proficiency test, which is given at the beginning of each semester, in order to

best determine the initial course in which to be placed. A student taking the proficiency test may apply immediately for the hours of credit warranted by the test score. The student must make written application to the chairman of the department and make payment of appropriate fees for such credit to be recorded.

2. Students may enroll in a course at the level for which they feel previous training qualifies them. In the Department of Foreign Languages and Literatures, recording of credit for the lower numbered course may be requested by the student upon completion of the course in which enrolled and is contingent upon the student's earning a grade of C or higher in the course. *Written application to the chairman of the department and payment of appropriate fees is required for such credits to be recorded.*

There is no fee charged for taking placement examinations; however, there is a fee for all placement credits which are recorded. For information on the fees, see *Fees and Charges*.

University Credit for Experiential Learning

Students seeking degrees in the College of Communication and Fine Arts, the College of Education, the Herff College of Engineering (Trade and Industrial Vocational Technical Education majors only), and the University College may be granted credit for college-level knowledge and understanding gained from work experience, life experience, or for certain non-traditional instruction. The student who wishes an assessment of such learning prepares a detailed and documented portfolio of those learning experiences which are to be evaluated.

Assessment by portfolio is reserved for knowledge and competencies which do not readily fit into the credit by examination procedures described above. More detailed information about procedures may be obtained from the individual colleges. For fee information, see *Fees and Charges*.

4. GRADUATION FROM THE UNIVERSITY

GENERAL REQUIREMENTS

Courses required for all baccalaureate degrees are outlined in the section which follows; specific requirements for the individual degrees will be found in the *Colleges and Degree Programs* section. Requirements for the Juris Doctor degree will be found in the *Catalog* of The School of Law; requirements for graduate degrees will be found in the *Catalog* of The Graduate School.

The following have been established as minimum requirements by the University for all undergraduate degrees offered. In

addition, the student must meet the requirements for the specific degree as established by the college or department in which it is offered. A minimum of 132 semester hours is required for all degrees. In some degrees and majors, the courses which may be used to meet the University requirements below are specified. The assistance of an advisor should be sought to determine which courses will meet degree requirements.

1. English

(12 semester hours.) All candidates for graduation at Memphis State University are required to complete English 1101

and 1102, or their equivalents, with a grade of C or better. Before enrolling in English 1101, a student must have either: (1) an ACT English score of 19 or above, or (2) an SAT verbal score of 450 or above, or (3) a satisfactory completion of a placement essay administered by the Department of English. All other students must successfully complete English 1100 with a grade of C or better before proceeding to English 1101. After successful completion of English 1101 and 1102, all students must take any two of the following: 2101, 2102, 2103, 2104, 2105, 2106, or their equivalents. Freshman and sophomore sequences must be scheduled in con-

secutive semesters until completed. English 1101 and 1102 must be taken in sequence; no credit will be allowed for English 1102 until 1101 has been successfully completed.

2. History

(6 semester hours.) All students must complete successfully History 2601 and 2602, or their equivalents. A student may substitute three semester hours of Tennessee History for three of the six semester hours of American History required. (This requirement is waived for engineering students and students enrolled in the University College except for those who did not earn at least one unit in American History in high school.) The State requires that students who did not earn one unit in American History in high school take it during their *first or second* year at the University.

Those students who use the G.E.D. rather than high school graduation for admission to the University will be considered as having the equivalent of a Tennessee high school diploma and, thus, to have had the equivalent of American History in high school. This does not mean that a student already admitted to Memphis State may then take the G.E.D. as an exam for credit in American History.

3. Humanities

In addition to the 6 semester hours of literature (see English), 3 semester hours of humanities are required of all students. Courses which fulfill this requirement are specified by the college in which the student is enrolled for a degree.

4. Mathematics

(3 semester hours.) All students must successfully complete a minimum of three semester credits in mathematics or Philosophy 1611.

5. Science

(6 semester hours.) All students must complete successfully a minimum of six semester credits in a natural, physical, or engineering science.

6. Computer Literacy

Students who enter Memphis State University or any other institution as beginning freshmen in fall, 1984, or later, are required to possess competency in computer literacy prior to graduation. Competency may be gained either by passing grades in designated coursework or passing a specially designed test.

7. Physical Education

Two semesters of physical education activity courses are required of all regular undergraduate students during the first four semesters in the University. The regular undergraduate student who is part-time or who is taking the majority of hours in the evening is not required to take the courses during the first four

semesters but is encouraged to schedule these courses as early as possible during college residency. The student may select the activity courses from the Department of Health, Physical Education and Recreation, or any 1000 level activity course with the prefix DANC offered by the Department of Theatre and Communication Arts. Any student except those with a major or minor in Physical Education has the option of taking these activity courses for a letter grade or on a credit/no credit basis.

A student unable, for medical or other reasons, to take regular physical education is required to register for an adaptive class, or otherwise follow recommendations of the Chairman of the Department of Health, Physical Education and Recreation.

A student may reduce the number of required physical education credits by the number of credits in Air Force ROTC or Army ROTC completed with a passing grade. Two semester hours of physical education may be waived for students who earn two semester hours as members of the Memphis State University Marching Band. Band members are required to take a minimum of one semester of physical education and may not receive waivers for both band and ROTC.

Only students in the following programs may apply more than 8 semester hours of physical education to the minimum degree requirement of 132 semester hours (see specific college limitations): Physical Education major or minor, Recreation major, B.F.A. Theatre major with a concentration in Performance or Dance, B.A. Theatre major, Theatre or Dance minor. A veteran receiving as many as six semester hours of health and physical education for service experience may apply two extra credit hours toward the minimum of 132 semester hours required for graduation.

8. Quality Point Average

To receive a bachelor's degree from any of the colleges in the University, a student must have a quality point average of at least 2.000 (i.e., two quality points for every semester hour attempted). If for any reason a student offers more than 132 semester hours credit for graduation, the ratio of two quality points to one semester hour of credit must be maintained. To attain this standard the candidate must have a C average on all courses attempted in the University. Students with transfer credit are required to maintain an average of C on all courses taken at Memphis State University.

9. Residence Requirements

A student will satisfy residence requirements for graduation by completing, at Memphis State University, 33 of the final 66 semester hours which are required for his degree. (A student transferring credits from a two-year collegiate institution must complete, as a requirement for the baccalaureate degree, a minimum of sixty

semester hours in an accredited senior institution.) In addition, the student must meet the residence requirements for the specific degree as established by the college in which it is offered. Exceptions to residence requirements can be authorized by the appropriate dean.

Residence requirements for specific degrees within each college may be found in the *Colleges and Degree Programs* section. For more details, the student should inquire in the office of the dean of the appropriate college.

10. Testing as a Prerequisite for Graduation

Any or all students may be required to take one or more tests designed to measure general education achievement and/or achievement in selected major areas as a prerequisite to graduation, for the purpose of evaluation of academic programs. Unless otherwise provided for in any individual program, no minimum score or level of achievement is required for graduation. Participation in testing may be required for all students, for students in selected programs, and for students selected on a sample basis. Details concerning these regulations and the dates of the examinations will appear in the *Schedule of Classes* each semester.

11. Filing for Graduation

All students are required to file an intention to graduate during the semester prior to the semester of graduation. The deadlines for this filing are included in the academic calendars of the catalogs and the schedules of classes. It is the responsibility of the student to insure that this deadline is met.

PRE-PROFESSIONAL DEGREE PROGRAMS

A student completing specified undergraduate work before entering medical, dental, or pharmacy school may, after providing evidence of satisfactory completion of the first year of professional study, receive a baccalaureate degree from Memphis State University. The following provisions must be met *before enrollment in the professional school*:

1. The candidate must complete a minimum of 99 semester hours of pre-professional coursework; at least 24 semester hours of this coursework must be numbered above 2999.
2. The last two semesters of pre-professional coursework must be done at Memphis State University.
3. The candidate must meet all lower division requirements for the given baccalaureate degree.
4. The candidate must complete a minimum of 24 semester hours in a major area; at least 6 of these hours must be taken in residence at Memphis State University.
5. Formal application for the Memphis State University degree must be made to the dean of the college in which the candidate is enrolled. The dean must also approve in writing the choice of professional school.
 - a. Minimum entrance requirements to the professional school must be 60 semester hours of undergraduate work.

b. The professional school must be accredited by the appropriate recognized national association.

The candidate in the pre-professional degree program should notify the dean of the college of his/her intentions no later than the beginning of the sophomore year and should, with the guidance of an advisor, plan the program at that time.

REQUIREMENTS FOR TEACHER CERTIFICATION

An undergraduate student can receive certification to teach in the elementary or secondary schools of Tennessee by completing all degree requirements in one of the following programs:

1. For programs leading to full certification in grades K-8 and for most programs in grades 7-12 and K-12, the student must enroll in The College of Education. These programs will lead to a Bachelor of Science in Education degree.

2. For programs leading to full certification in grades 7-12 or K-12, the student may enroll either (a) in The College of Education or (b) in the college that offers a major in a specific subject for which certification is desired.

a. **College of Education:** The student must complete one or more endorsement areas and all other degree requirements outlined for the Bachelor of Science in Education. Such a program will lead to a Bachelor of Science in Education degree.

b. **Other Colleges:** The student must complete the major program and all degree requirements of the college in which officially enrolled. In addition, the student must complete requirements for a major in Secondary Education, consisting of General Education Professional Education and a major endorsement in one specific subject. The requirements are listed in the Teacher Education Programs: Requirements and Curriculum description in *The College of Education Degree Programs* section of this catalog. Such a program will lead to a degree designated by the college in which the degree is taken. Such a program

will also lead to a B.S.Ed. if the student wishes to apply for a degree from The College of Education.

A student in any of the programs described above must (1) file an application to the Teacher Education Program in The College of Education; (2) fulfill the requirements and application procedures for the Internship/Student Teaching Program; (3) file an intent to graduate application prior to the University deadline; (4) have an overall QPA of no less than 2.25; a QPA of 2.50 in required professional education courses; a QPA of no less than 2.50 in all courses fulfilling completion of each endorsement area; a grade of C or above in each required professional education course; (5) take the Core Battery of the National Teacher Examinations (NTE); and (6) fulfill all other graduation requirements listed under the *Teacher Education Programs: Requirements* section.

Graduate, special, and transfer students who wish certification should confer with The College of Education General Advisor concerning their individual requirements. Placement services are available to those students who register in the Teacher Placement Office.

CATALOG APPLICABILITY

A student may complete the requirements for the initial degree under the provisions of any *valid* MSU catalog provided the effective date of that catalog is not earlier than the student's initial admission to MSU or some other accredited

institution of higher learning. The degree requirements published in the *Undergraduate Programs and Regulations Catalog* issue of the Memphis State University *Bulletin* are valid for seven years from the beginning of the academic year to which the catalog applies. (This issue of the catalog is valid *through* summer 1991).

SECOND BACHELOR'S DEGREE

A student who has completed the requirements for one bachelor's degree from Memphis State University may receive a second bachelor's degree upon the completion of the curriculum prescribed in the current catalog or any other valid catalog approved by the appropriate degree-granting college. The two degrees may be conferred simultaneously or subsequently. Students who are seeking a second bachelor's degree and who have earned the initial bachelor's degree from another institution are subject to all catalog regulations applicable to transfer students.

If a student completes the requirements from a valid catalog for an additional major for a degree previously earned at Memphis State University, that major may be posted on the student's record *if the student applies for the additional major through the appropriate dean's office.*

5. COLLEGES AND DEGREE PROGRAMS

The College of Arts and Sciences

JOHN H. WAKELEY, Ph.D., *Dean*
Room 219, Mitchell Hall

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
Anthropology	Anthropology		Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Biology	Biology	(1) Botany (2) Microbiology (3) Invertebrate Zoology/Entomology (4) Toxicology (5) Vertebrate Zoology	Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Chemistry	Chemistry		Bachelor of Arts (B.A.) Bachelor of Science (B.S.) Bachelor of Science in Chemistry (B.S.Ch.)
	Physical Science		Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Criminal Justice	Criminal Justice		Bachelor of Arts (B.A.)
Economics	Economics		Bachelor of Arts (B.A.)
English	English	(1) British Literature (2) American Literature (3) Modern Literature (4) Creative Writing (5) Professional Writing (6) Language and Linguistics	Bachelor of Arts (B.A.)
†Foreign Languages	Foreign Languages (With Single language concentration from the first five or multiple language concentration from total list)	(1) French (2) German (3) *Russian (4) Spanish (5) Latin (6) Greek (7) Italian	Bachelor of Arts (B.A.)
Geography and Planning	Geography	(1) Applied Geography for Business and Planning (2) Cartography (3) Environmental and Earth Science (4) Geography (5) Urban Geography	Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Geology	Geology		Bachelor of Science in Geology (B.S.G.)
History	History		Bachelor of Arts (B.A.)
Mathematical Sciences	Mathematical Sciences	(1) Mathematics (2) Applied Mathematics (3) Statistics	Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
	Computer Science		Bachelor of Science (B.S.)
Philosophy	Philosophy		Bachelor of Arts (B.A.)
Physics	Physics		Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Political Science	Political Science	(1) Political Science (2) Public Administration	Bachelor of Arts (B.A.)
Psychology	Psychology		Bachelor of Arts (B.A.) Bachelor of Science (B.S.)
Sociology and Social Work	Sociology	(1) General Sociology (2) Manpower (3) Social Research (4) Urban Sociology	Bachelor of Arts (B.A.)
	Social Work		Bachelor of Arts (B.A.)
Interdepartmental Programs	Medical Technology		Bachelor of Science in Medical Technology (B.S.M.T.)

*A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages and Literatures.

†With the consent of the International Business Advisor, Foreign Languages may also be a second or collateral major for the B.B.A. degree with a major in International Business.

PURPOSES

The College of Arts and Sciences has three distinct functions within the framework of the University.

1) Its primary function is to offer a strong liberal arts program designed to help the students prepare themselves for life in their own cultural setting by acquiring the means and desire to continue the processes of intellectual development and character formation throughout their lives. "The purpose of education," wrote John Stuart Mill, "is to make capable and cultivated human beings." "Education has for its object the formation of character," wrote Herbert Spencer. We believe that people are people, no matter what their careers, and that if we can help people to become more capable and sensible, they will have better careers and lives. It is our belief that the best preparation for any profession or vocation is a thorough foundation in those major fields of human interest, which are included in the humanities, the natural sciences, and the social sciences. A program of liberal studies at Memphis State University aims to provide the students with a store of factual knowledge, to introduce them to varying sets of principles, to stimulate them to think about and to evaluate facts and principles, and to encourage them to order their own affairs and those of their society with the talent, insight, and discrimination which they develop.

2) The College of Arts and Sciences offers this kind of education to the candidates for its own degrees, and to the students of other colleges of the University, all of whose degree plans call for courses in the arts and sciences.

3) The College offers preparatory courses for students interested in careers in medicine, dentistry, nursing, teaching, law and other professions; specific pre-professional programs, designed to prepare students to qualify for admission to professional schools, are available.

ORGANIZATION OF THE COLLEGE

Departments

The College of Arts and Sciences comprises fifteen departments: Anthropology, Biology, Chemistry, Criminal Justice, English, Foreign Languages and Literatures, Geography and Planning, Geology, History, Mathematical Sciences, Philosophy, Physics, Political Science, Psychology, and Sociology and Social Work. Requirements for the majors and minors offered by these departments are listed in this section under *Departmental Requirements for Majors and Minors*.

CONCENTRATION GROUPS

The various offerings of the fifteen departments of The College of Arts and Sciences are organized into three concentration groups:

HUMANITIES: English, French, German, Greek, history, Italian, Latin, mathematics, philosophy, psychology, Russian, Spanish.

NATURAL SCIENCES: biology, chemistry, geology, physical geography, mathematics, physics.

SOCIAL SCIENCES: anthropology, criminal justice, economics, geography (other than physical), history, philosophy, political science, psychology, sociology.

RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in the *Graduation from the University* section. A transfer student in The College of Arts and Sciences must earn at least 6 semester hours in residence in the major subject and at least 3 semester hours in the minor. These credits may be earned only through regular class enrollment for a letter grade.

PRE-PROFESSIONAL TRAINING

Standing committees of the faculty are available to advise students interested in preparing for careers in various professional areas; committee members, representing departments of the University in which pre-professional training is given, advise students concerning specific programs required by the various professional schools. A student who completes successfully six semesters of undergraduate work before entering an accredited professional school may, upon presentation of evidence of satisfactory completion of the first year of professional education, be granted a baccalaureate degree from Memphis State University, provided that the requirements set forth in the pre-professional degree program are met. The advisory committees are as follow:

Pre-Medical— This committee advises students interested in careers in medicine, dentistry, nursing, pharmacy, optometry, veterinary medicine, medical technology, and related fields in the health sciences.

Pre-Law— In general, accredited law schools have not adopted specific requirements for pre-law education; they do, however, emphasize certain courses as being conducive to the development of the broad cultural background necessary for the successful study of law. Students enrolling in The College of Arts and Sciences interested in applying to law

school should see the Assistant Dean for Undergraduate Activities for assignment of a pre-law advisor in one of the several departments.

TEACHER PREPARATION

Students enrolled in a degree program of The College of Arts and Sciences who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Detailed certification requirements are outlined under Requirements for Teacher Certification in the *Graduation from the University* section. An application to enter the Teacher Education Program must be filed with The College of Education General Advisor.

DEGREE REQUIREMENTS

Degrees Offered

The College of Arts and Sciences offers four degrees: the Bachelor of Arts, the Bachelor of Science, the Bachelor of Science in Chemistry, and the Bachelor of Science in Medical Technology.

Foreign Language Requirements

Specific requirements in foreign language for the degrees offered by The College of Arts and Sciences are as follow:

A. BACHELOR OF ARTS AND BACHELOR OF SCIENCE: Twelve semester hours or the equivalent, in one foreign language.

B. BACHELOR OF SCIENCE IN CHEMISTRY: German 1101, 1102, 2201 and 2203.

C. BACHELOR OF SCIENCE IN MEDICAL TECHNOLOGY: Six semester hours in one foreign language.

A student already having proficiency in a foreign language taught at Memphis State University (attained through high school or college courses, military service, private study, foreign residence, etc.) should enroll in a course at the level for which the student is qualified. This course can best be determined by taking the placement test which is given at the beginning of each semester. (Detailed information is available from the chairman of the Department of Foreign Languages and Literatures.) A student taking the placement test may apply immediately for the hours of credit warranted by the test score. Information pertaining to the charges for placement credit is given in the *Fees and Charges* section of this catalog. If the student chooses not to take the placement test, enrollment in any course above the beginning one and

completion of that course with a grade of C or better will qualify the student to apply for credit for the preceding courses. In either case, the student must make written application to the chairman of the Department of Foreign Languages and Literatures (application forms are available from the department). This regulation shall apply only to the lower division, and credit gained in this manner shall not exceed 12 semester hours in any one language.

This regulation will also apply to a student whose mother tongue is not English, with the following modifications: lower-division credit in the native language will be given when the student has demonstrated the English proficiency required for graduation (see *Graduation from the University*, for details), and has proven proficiency in the native language to the satisfaction of the Department of Foreign Languages and Literatures. The student must make *written application to the chairman of the Department of Foreign Languages and Literatures*.

Bachelor of Arts

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. Not more than 42 semester hours in any one subject will be counted toward a degree. No more than 18 semester hours may be taken outside The College of Arts and Sciences except for courses required for either (1) a minor or (2) teacher certification, but not both; the required or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follows:

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

Foreign Language: 12 semester hours, or the equivalent, in one foreign language.

History: HIST 2601, 2602.

Natural Science: 3 courses from at least 2 departments; if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are BIOL 1111, 1112; CHEM 1051, 1052; or CHEM 1111, 1112; or PSYC 1031, 1032; GEOG 1101, 1102; GEOL 1101, 1201 or GEOG 1101, GEOL 1101 (not more than two courses may be taken in geography and/or geology courses to meet this requirement); PHYS 1111, 1112, or 1811, 1812, or 2111, 2112, or 2511, 2512.

Social Science: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300, and ANTH 1200 or 1400; CJUS 1100; ECON 1010, 2110, 2120; GEOG 1401, 2301, 2311; HIST 1301, 1302; International Studies 1101, 1102; POLS 1100, 1101, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112; no more than 6 hours from the following courses: JOUR 1700; COMM 1781, 1782.

Mathematics/Philosophy: 9 semester hours as follow: 3 of mathematics plus 3 of philosophy plus 3 of either. The following courses are acceptable: MATH 1181, 1182, 1211, 1212, 1312 or 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581; PHIL 1111, 1611.

Fine Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551; COMM 1851.

Physical Education: for details see *Graduation from the University*. NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.

Major: Completion of requirements for any major offered in The College of Arts and Sciences.

Electives to bring the total to 132 semester hours.

Bachelor of Science

The Bachelor of Science degree may be awarded only to students majoring in one of the following disciplines: anthropology, biology, chemistry, computer science, geography, geology, mathematical sciences, physics, or psychology. Students majoring in anthropology, geography, or psychology (for the Bachelor of Science degree) must minor in either biology, chemistry, mathematical sciences, or physics.

To qualify for the degree of Bachelor of Science the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation at least 42 semester hours must be in courses from the Upper Division. No more than 42 semester hours in any one subject will be counted toward a degree. No more than 18 semester hours may be taken outside The College of Arts and Sciences except for courses required for either (1) a minor or (2) teacher certification, but not both; the required or optional courses included in the degree requirements are not a part of these 18 semester hours. Detailed requirements are as follows:

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

Foreign Language: 12 semester hours, or the equivalent, in one foreign language.

History: HIST 2601, 2602.

Mathematics: 6 semester hours selected from the following: MATH 1181, 1182, 1211, 1212, 1312 or 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581.

Natural Science: One of the following two-semester sequences outside the major field: BIOL 1111, 1112; CHEM 1051, 1052; CHEM 1111, 1112; GEOG 1101, 1102; GEOL 1101, 1201 or GEOG 1101, GEOL 1101, PHYS 1111, 1112, or 1811, 1812; or 2111, 2112, or 2511, 2512.

Social Science: 12 semester hours from the following with not more than 6 hours in a single discipline: ANTH 1100 or 1300, and ANTH 1200 or 1400; CJUS 1100; ECON 1010, 2110, 2120; GEOG 1401, 2301, 2311; HIST 1301, 1302; INTL 1101, 1102; PHIL 1111, 1611; POLS 1100, 1101, 2301, 2501; PSYC 1101, 1102; SOCI 1111, 1112; no more than 6 hours from the following courses: JOUR 1700; COMM 1781, 1782.

Fine Arts: Two of the following courses: ART 1101; MUHL 1101; THEA 1551.

Physical Education: for details see *Graduation from the University*. NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)

Major: Completion of the requirements for a major in one of the following disciplines: anthropology, biology, chemistry, computer science, geography, mathematical sciences, physics, or psychology.

Minor: Students majoring in anthropology, geography, or psychology (for a Bachelor of Science degree) must complete a minor in either biology, chemistry, mathematical sciences, or physics.

Electives to bring the total to 132 semester hours.

Bachelor of Science in Chemistry

To qualify for the degree of Bachelor of Science in Chemistry, the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. No more than 18 semester hours may be in courses outside The College of Arts and Sciences except for courses required for teacher certification. The required or optional courses included in the degree requirements are not a part of

these 18 semester hours. Detailed requirements are as follow:

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

Foreign Language: GERM 1101, 1102, 2201, and 2203.

History: HIST 2601, 2602.

Mathematics: MATH 1321, 2321, 2322.

Physics: PHYS 2511, 2512, or 2111, 2112 (by permission).

Chemistry: CHEM 1111, 1112, 3201, 3211, 3301, 3303, 3311, 3312, 3402, 3411, 3412, 3604, 4111, 4911, and seven additional semester hours in senior chemistry courses. No more than three credit hours of research may be counted toward the chemistry requirements.

Social Sciences: Three semester hours from one and six semester hours from another of the following areas: anthropology, economics, geography (excluding earth science courses and GEOG 3501, 3502, and 4510), history (excluding HIST 2601 and 2602), philosophy, political science, psychology, and sociology.

Fine Arts: One of the following courses: ART 1101; MUHL 1101; THEA 1551.

Physical Education: for details see *Graduation from the University*. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)

Minor: Completion of the requirements for a minor in biology, physics or mathematical sciences.

Electives to bring the total to 132 semester hours.

Bachelor of Science in Medical Technology

For students interested in careers in medical technology, The College of Arts and Sciences offers a three-year preparatory curriculum, the successful completion of which will qualify them to enter any school of medical technology approved by the American Medical Association Council on Medical Education. After completion of the curriculum in the school of medical technology, the student is eligible for examination and certification by the Registry of Medical Technologists of the American Society of Clinical Pathologists.

The University maintains an affiliation in Memphis with the Schools of Medical Technology of the Baptist Memorial Hospital, Methodist Hospital, and St. Francis Hospital, all of which are accredited. Only those students who enroll in the School of Medical Technology of one of these hospitals can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University. Students who decide to enter one of these schools after completing successfully the preparatory curriculum, should apply directly to the school of their choice nine to twelve months in advance of the time they wish to enter. After the completion of their clinical year, they may apply for the degree of Bachelor of Science in Medical Technology from this University.

Specific requirements for the preparatory curriculum in medical technology and the additional requirements for those working toward a baccalaureate degree are as follow:

ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

Foreign Language: 6 semester hours in one language

HIST 2601, 2602

PSYC 1101 or SOCI 1111 or PHIL 1111

PSYC 1102

MATH 1212

BIOL 1111, 1112, 3070, 3500, 3730, 3800, 4440, 4444

CHEM 1111, 1112, 3201, 3211, 3301, 3302, 3311, 3312.

PHYS 2111, 2112

Two of the following courses: ART 1101, MUHL 1101, THEA 1551

Physical Education: see *Graduation from the University*. (NOTE: The College of Arts and Sciences accepts a maximum of four semester hours in physical education activity courses toward the fulfillment of its degree requirements.)

(Courses strongly recommended are: PSYC 2301, COMM 1311, CHEM 4511, MGMT 3110 and 4210)

IMPORTANT NOTE: *The preparatory curriculum in medical technology does NOT qualify a student for the three-year pre-professional degree program. Only those students who enroll in the Schools of Medical Technology of the Baptist Memorial Hospital, the Methodist Hospital, or St. Francis Hospital, all located in Memphis, can qualify for the degree of Bachelor of Science in Medical Technology from Memphis State University.*

DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

Listed below are the specific course requirements for all majors and minors offered in The College of Arts and Sciences. A minimum grade of C is required in every course applicable toward a major or minor (including corequisites), except in beginning courses and in sophomore English.

Every student should be aware that the mere completion of courses outlined below with a grade of C or better does not guarantee classification as a major or minor in the discipline concerned; *the student must be recommended by the chairman of the department in which the major or minor is sought.* If, in the opinion of the chairman, the quality of the student's work is not high enough, additional work, the repetition of courses, or other evidences of acceptable scholarship may be required.

ANTHROPOLOGY

The Major: 30 semester hours in anthropology courses, including ANTH 1100 or 1300, 1200 or 1400, 3200, 4065; and 18 additional semester hours, at least 6 of which must be at the 4000 level.

The Minor: 18 semester hours in anthropology courses, including ANTH 1100 or 1300, 1200 or 1400, 3200, and 4065.

Honors Program

The Department of Anthropology offers an honors program in anthropology to the superior anthropology student who desires a more intensive approach to and knowledge of the discipline, a deeper understanding of research skills, and an opportunity for original criticism and analysis. To be eligible a student must (a) have the approval of the Departmental Honors Committee, (b) be an anthropology major, (c) have attained at least junior standing, (d) have completed successfully ANTH 1100 or 1300, 1200 or 1400, and one upper-division anthropology course, (e) maintained a cumulative grade point average of at least 3.00 in overall studies, (f) maintained a cumulative grade point average of at least 3.25 in anthropology, (g) completion of four honors courses in anthropology (at least one of which must be an independent study culminating in a research paper/thesis or research report) and a minimum of six hours in honors courses outside anthropology. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Anthropology." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available at the Department of Anthropology office.

BIOLOGY

The Major: 36 semester hours in biology courses, including BIOL 1111, 1112, 3070; the election of one of the following areas of concentration and the meeting of the specific requirements for that area; and CHEM 1111, 1112, 3301, 3302, 3311, and 3312. Completion of both BIOL 1200 and BIOL 1600 shall be required before enrolling in any upper division course which is acceptable for a major.

BOTANY: One field course chosen from BIOL 3240, 4225, or 4240; one morphology course chosen from 3220, 3221, 3222, 4226; one physiology course either 4231 or 4232; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.

MICROBIOLOGY: BIOL 3500, 3560; two courses chosen from 4400, 4440, 4444, 4460, 4501, 4560; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.

INVERTEBRATE ZOOLOGY OR ENTOMOLOGY: BIOL 3840; two courses chosen from 3800, 3900, 3940, 3960, 3965, 4001, 4820, 4920, 4930; and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.

TOXICOLOGY: BIOL 1110, 3030 (or 3730, 4231, or 4232), 4002, 4003, 4570, and either 3050 or 3500; MATH 1321, 2321, 4611, 4001; CHEM 3201, 3211, 3604, 4511, 4512; PHYS 2511, 2512. Completion of all requirements for the Bachelor of Science in Biology with a concentration in toxicology allows for the student to declare a second major in physical science in the Department of Chemistry. Completion of three additional hours in upper division chemistry courses entitles the student to a double major in biology and chemistry.

VERTEBRATE ZOOLOGY: BIOL 3700; one morphology course (either 3610 or 3620); one physiology course (either 3030 or 3730); and upper division hours in biology (chosen in conference with the advisor) to bring the total semester hours in biology to 36.

The Minor: 18 semester hours in biology courses (including BIOL 1111, 1112), 7 of which must be upper division hours. Completion of both BIOL 1200 and 1600 shall be required before enrolling in any upper division course which is acceptable for a minor. Either 3100 or 4100 may be included in meeting requirements, but not both.

CHEMISTRY

(The requirements listed below are for majors and minors the for Bachelor of Arts or Bachelor of Science degrees; for detailed requirements for the Bachelor of Science in Chemistry, a professional degree, see degree requirements described earlier in this section.)

CHEMISTRY

The Major: 32 semester hours in chemistry courses, plus related courses, outlined below:

CHEM 1111, 1112, 3201, 3211, 3301, 3302 or 3303, 3311, 3312, and sufficient additional upper division semester hours. No more than three credit hours of research may be counted toward the chemistry requirements.

MATH 1321, and two of the following courses: MATH 2321, 2322, 4611, COMP 4001

PHYS 2511, 2512 (or 2111, 2112 if approved by the chairman of the Department of Chemistry).

The Minor: 20 semester hours in chemistry courses, including CHEM 1111, 1112, 3301, 3302 or 3303, 3311, 3312, and three or four upper division semester hours.

PHYSICAL SCIENCE

A major in physical science is suggested for those students who plan to teach the sciences in high school but do not desire to major in either chemistry or physics.

The Major: 32 semester hours in chemistry and physics courses, including CHEM 1111, 1112; PHYS 2511, 2512 (or PHYS 2111, 2112); and additional upper division hours in chemistry and/or physics courses to bring the total to 32 semester hours.

The Minor: 20 semester hours in chemistry and physics courses, of which at least 8 semester hours must be from the upper division.

COMPUTER SCIENCE

The Major: 58 to 60 semester hours consisting of MATH 1321, 2321, 2701, 4241, 4613; COMP 1000, 2010, 3230, 3420, 4040, 4150, 4160, 4270 and an elective sequence which is a coherent package of 17-19 hours of computer-oriented courses designed by the student and the faculty advisor and approved by the Computer Science faculty. PHYS 2511 and 2512 are strongly recommended for the natural science requirement sequence and PHIL 1611 and ECON 2120 are strongly recommended as part of the social science requirement for the B.S. degree. This major is offered through the Department of Mathematical Sciences.

The Minor: 21 semester hours in computer science courses, including COMP 1000, 2010, 3230, 3420 and 9 additional upper division semester hours.

CRIMINAL JUSTICE

The Major: 36 semester hours of criminal justice including CJUS 1100, 2100, 312B, 3510, 3521 and 3541 plus 1B additional upper division hours in criminal justice as approved by the departmental advisor.

The Minor: 18 hours in criminal justice courses including CJUS 1100.

Honors Program

Criminal Justice majors or minors who have completed a minimum of 55 credit hours with a cumulative grade point average of at least 3.25 overall and in criminal justice are eligible for the Criminal Justice Honors Program. The program requires 18 hours of honors coursework, 6 hours of which must be taken outside the department. The Criminal Justice Honors Program is designed to offer to superior students a flexible curriculum which encourages the development of an individual's abilities to his or her full potential. The program provides for more intensive study and closer faculty contact than is normally available in standard undergraduate classes. Those students who com-

plete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Criminal Justice." Moreover, the student's diploma and the record at Memphis State University will reflect this. A detailed description of the program and the admission procedure is available in the Criminal Justice Department office.

ECONOMICS

The Major: 30 semester hours, including ECON 1010 or 2110, or 2110, 2120 (or six hours of Honors Principles), 3310, 3320, 4920, and 15 additional upper division semester hours in economics courses as approved by the department advisor.

The Minor: 18 semester hours in economics courses, including ECON 1010 or 2110, 2120 (or six hours of Honors Principles) 3310, 3320, and six additional upper division hours as approved by the department advisor.

Honors Program

All students who receive a grade of B or better in ECON 2130 or 2140 are eligible for the honors program. Entry to the program can also be obtained through the recommendation of a member of the faculty to the Economics Departmental Honors Committee. A student must maintain an average grade of at least 3.25 in economics to continue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in economics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320, and write a senior research paper. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Economics." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available in the Economics Department office.

ENGLISH

The Major: 36 semester hours of English, including 12 hours lower division (University requirement) and 24 hours above the 2000 level: 3 hours of British literature (chosen from among 3211, 3212, 3213, 3214, 3221, 3222, 3224, 4231, 4232, 4233, 4234); 3 hours of American literature (chosen from among 3321, 3322, 4321, 4322); completion of the requirements for one of the following six concentrations (9-12 hours): British Literature, American Literature, Modern Literature, Language and Linguistics, Creative Writing, or Professional Writing; 6-9 hours of upper division English electives. Students should see English advisers, who will explain the advantages of the various concentrations and assist students in developing an appropriate program.

The Minor: 12 upper division semester hours in English in one of the following areas: Literature, Language and Linguistics, or Writing.

NOTE: Students who wish to satisfy the requirements for both the English major and endorsement to teach English in high school should consult the certification requirements listed in the College of Education section of this *Catalog*.

Students who intend to pursue graduate studies in English are strongly advised to elect courses which will ensure a comprehensive overview of the major figures and movements in British and American literature and of modern language theory.

Honors Program

Freshman students with high ACT scores are issued invitations to participate in the honors program, which is open to all qualified students during the freshman and sophomore years. During the junior and senior years, it is restricted to English majors; students are eligible to apply for admission to the program if they have a grade point average of 3.25 in their overall studies and in English. Honor students take special courses during the junior and senior years and write a senior research paper. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in English." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available at the English Department office.

FOREIGN LANGUAGES

The Major: 30 or more semester hours from A and B, below. A. Courses numbered 1101, 1102, 2201, and either 2202 or 2203 (or their equivalents) in the foreign language or languages in which upper division courses are to be taken.

B. Successful completion of one of the following concentrations:

1. A single-language concentration in French, German, Latin, Russian*, or Spanish: 1B upper division semester hours.
2. A two-language concentration chosen from French, German, Greek, Italian, Latin, Russian, and Spanish: 24 upper division semester hours with a minimum of 9 semester hours in each language.
3. A three-language concentration: All three-language concentrations require prior consultation with and approval of the department chairman. Plans will normally consist of 30 semester hours to include at least 12 upper division semester hours in each of two languages plus approved course work in a third language.

NOTE: With the consent of the International Business advisor and an advisor in the Department of Foreign Languages and Literatures, Foreign Languages may also be a collateral major for the B.B.A. degree with a major in International Business.

Any major in Foreign Languages may earn a collateral minor in International Business. These Foreign Language majors should

take the following sequences of upper division courses: Advanced Conversation and Composition (6 hours) and the two courses for Commerce given by the individual languages. Students will have a minimum of six more credits to be taken from other upper division courses.

The minor in International Business will have at least 18 semester hours within the Fogelman College of Business and Economics. Notice that the courses listed in the Business and Economics section are all upper division and require corresponding lower division courses. Therefore, a minor will include, normally, 9 hours from this list and another 9 hours of lower division courses taken as prerequisites.

Please consult with your advisor and with the advisor of the International Business program regarding any matter concerning the curriculum program or graduation requirements.

The Minor: 21 semester hours from A and 8, below

A. Courses numbered 1101, 1102, 2201, and either 2202 or 2203 (or their equivalents) in the foreign language in which upper division hours are to be taken.

B. 9 upper division semester hours in one of the following languages: French, German, Latin, Greek, Italian, Russian, or Spanish.

*A concentration in Russian requires a collateral foreign language concentration or a collateral major outside the Department of Foreign Languages and Literatures.

GEOGRAPHY

The Major: 31 semester hours in geography courses including one course from each of the core subject areas for a total of 13 hours and completion of the requirements in one of the following areas of concentration:

Core Requirements:

a. Environmental and Earth Science: GEOG 1101 or 1102 (4)

b. Human: GEOG 1401, 3200, or 3430 (3)

c. Regional: Any regional geography (3)

d. Cartography: GEOG 3502 or 3503 (3)

Concentrations:

GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours.

ENVIRONMENTAL AND EARTH SCIENCE: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3221, 4111, 4121, 4122, 4131, 4201, 4203, 4211, 4231, and 4251.

CARTOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3501, 3502, 3503, 4502, 4503, 4510, 4511, 4521, and 4531.

URBAN GEOGRAPHY: 18 semester hours of geography with a minimum of 12 upper division hours selected from GEOG 3430, 3451, 4201, 4421, 4431, 4434, 4442, 4443, and 4531.

APPLIED GEOGRAPHY FOR BUSINESS AND PLANNING (33 semester hours): Requirements include GEOG 4431, 4521, 4531, FIR 3130, and FIR 3310 or 3410, MKTG 3010 and ACCT 2010; two courses selected from GEOG 3451, 4201, 4442, or 4443; one course selected from GEOG 4203, 4434, or 4453, and one course selected from GEOG 4502, 4503, 4510, or 4511.

Students in this concentration must satisfy geography major core requirements by taking GEOG 1101 or 1102, GEOG 1401 or 3430, GEOG 3503, and 3 semester hours in any regional course. This concentration applies toward the Bachelor of Arts degree only. Students must include ECON 2110 and 2120 as a part of the Social Science requirement.

The Minor: 20 semester hours in geography courses, at least 9 of which must be upper division hours.

GEOLOGY

The Major: 36 semester hours in geology courses, including GEOL 1101, 1201, 3301, 3302, 3303, 3211, 3512, 3712, 4622, and additional upper division semester hours as approved by the advisor: CHEM 1111, 1112, MATH 1321; PHYS 2511, 2512 or 2111, 2112

The Minor: A minimum of 18 semester hours in geology courses, including GEOL 1201. Six of these hours must be selected from upper division courses.

HISTORY

The Major: 30 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 18 additional upper division semester hours. Of the 18 upper division hours required for the major, a maximum of 12 may be taken in any one field (United States, Latin American, Ancient/ Byzantine, European, Russian, Far Eastern, African).

The Minor: 21 semester hours in history courses, including HIST 1301, 1302, 2601, 2602, and 9 additional upper division semester hours.

Honors Program:

History majors who have attained junior standing, have completed successfully six semester hours of lower division history, and have maintained a grade point average of at least 3.25 in overall studies and in history courses taken, are eligible for admission to the honors program in history. Students admitted to the program will take 12 hours of honors work in history, including History 4003 and History 4996, during their junior and senior years. Those who successfully complete the program and the regular 8 A requirements will have their degree conferred "With Honors in History." The student's diploma and the record at Memphis State University will be similarly endorsed. A detailed description of the program, together with application forms for admission, may be obtained in the History Department office.

MATHEMATICAL SCIENCES

The Major: 36 semester hours in mathematical science courses including MATH 1321, 2321, 2322, and 2421 (for departmental honors students, 37 semester hours including MATH 1401, 1402, 2401, and 2402); CHEM 1111 and 1112 or PHYS 2511 and 2512 (for honor students, two approved one-semester courses containing significant mathematical applications, taken in a department other than Mathematical Sciences); and completion of the requirements in one of the following areas of concentration.

MATHEMATICS: MATH 4350, three of the following courses—MATH 4261, 4351, 4361 and 4411; and 9 upper division semester hours of electives in the mathematical sciences.

APPLIED MATHEMATICS: MATH 3391, 4350, 4391, 4392; and 9 upper division semester hours of electives in the mathematical sciences.

STATISTICS: MATH 4611, 4612, 4613, 4631, COMP 4001; and 6 upper division semester hours of electives in the mathematical sciences.

The Minor: 18 semester hours in mathematical sciences courses, including MATH 1321, 2321, 2322 and 6 upper division hours.

Honors Program:

The Department of Mathematical Sciences offers an honors program in mathematics for the talented student who desires to achieve mathematical maturity at a rate consistent with his own exceptional ability. In the first year of this program, the student will investigate calculus from a theoretical viewpoint. The second year will consist of exploring in depth the fundamental concepts of contemporary mathematics. After completion of this two-year sequence, the participant will be treated as a mature student of mathematics and he will be allowed to register for any course in mathematical sciences at the B.S. or M.S. level (subject to the regulation of the Graduate School concerning combination undergraduate-graduate students as set forth on page five of Policies of the Graduate School) regardless of the formal course prerequisites. The second two years of the honors program are thus characterized by a high degree of flexibility and mathematical maturation. Specific requirements are as follow:

1. MATH 1401, 1402, 2401, 2402 (in lieu of 1321, 2321, 2322, and 2421).

2. At least two approved one-semester courses containing significant mathematical applications, taken in a department other than Mathematical Sciences.

3. A minimum of 21 hours of upper-division courses in Mathematical Sciences, including Senior Honors Seminar, with a GPA of 3.5 or better in these courses; courses to be determined in consultation with the student's advisor and with the approval of the departmental Honors Committee.

Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Mathematical Sciences." Moreover, the student's diploma and the record at Memphis State University will reflect this. The Honors Committee of the Department of Mathematical Sciences will make all decisions concerning admissions to the program.

PHILOSOPHY

The Major: 30 semester hours in philosophy courses including PHIL 1111, 1611, 3001, 3002, 3411 or 3511 and 15 additional upper division semester hours.

The Minor: 18 semester hours in philosophy courses, including PHIL 1111, 1611, and 12 upper division semester hours. In consultation with the coordinator of undergraduate studies in Philosophy, a student may design a minor (18 hours) that applies to the student's major area of study.

Honors Program:

This program is open to philosophy majors with a 3.0 overall average and a 3.5 average in philosophy. The student will complete, with a grade of 8 or better, either the philosophy honors seminar (PHIL 3800) or a thesis submitted for credit in PHIL 4891. The thesis topic must be approved by the thesis director before the student registers for PHIL 4891.

Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degree conferred "With Honors in Philosophy." Moreover, the student's diploma and record at Memphis State University will reflect this.

PHYSICAL SCIENCE (See Chemistry)

PHYSICS

The Major: 37 semester hours in physics courses, including PHYS 2511, 2512 (PHYS 2111, 2112 are acceptable but not recommended), PHYS 3010, 3011, 3111, 3211, 3610, 3611, 4510, 4211, 4410 and six additional hours of upper division electives: CHEM 1111 and 1112; MATH 1321, 2321, 2322, and 3391, or equivalent courses.

The Minor: 20 semester hours in physics courses, including PHYS 2511, 2512 (PHYS 2111, 2112 are acceptable but not recommended), and additional upper division hours.

POLITICAL SCIENCE

The Major: 30 semester hours in political science courses, including POLS 1100, 1101, either 2301 or 2501, and completion of requirements for one of the concentrations below.

POLITICAL SCIENCE: POLS 3100 and a minimum of 18 additional semester hours, at least 15 of which must be upper division hours from four of the following areas:

American Government, Political Theory, International Relations, Comparative Politics, and Public Administration. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement.

PUBLIC ADMINISTRATION: Either POLS 3211 or 3224, plus 3601, 4101, and a minimum of 12 additional semester hours in political science, at least 9 of which must be upper division hours. Only 9 semester hours of internship courses may be counted toward the 30 semester hour requirement.

NOTE: Any major in Political Science may earn a minor in Urban Studies or a second major in International Studies. The Urban Studies student may take up to five courses from among: POLS 3100, 3224, 4221, 4224, 4225, and 4230 or 4231. The student must complete URBN 4001 to meet the minor requirement in Urban Studies. Political Science courses in international relations and comparative government fulfill requirements for both the political science major and the major in international relations within the international studies program.

The Minors:

POLITICAL SCIENCE: 18 semester hours in political science courses, including either POLS 1100 or 1101 and at least 6 semester hours from the upper division. Only 6 semester hours of internship courses may be counted toward the 18 semester hour requirement.

PUBLIC ADMINISTRATION: 18 semester hours in political science courses including POLS 1100, 3213, 3601 and 9 additional semester hours to be selected from the following: POLS 3211, 3224, 4213, 4214, 4221, 4224, 4231, 4602, 4603, 4604, 4611, and 4702. Only 6 semester hours of internship courses may be counted toward the 18 semester hour requirement.

Honors Program:

The department offers an honors program to qualified majors who choose to pursue a more sophisticated knowledge of the discipline, a more rigorous level of analysis, and a deeper understanding of politics. Students who have completed about 55 hours of course work (with at least 9 hours in Political Science) and have a minimum over-all grade point average of 3.0 (with a minimum in Political Science of 3.25), or can present equivalent qualifications, are invited to apply for admission to the program. The program requires 18 hours of honors course work, 12 or more of which must be upper-division Political Science courses, and minimum final grade point averages of 3.00 overall, 3.25 in Political Science, and 3.25 in honors coursework. Those students who complete the program and the regular college requirements will be recognized at the commencement ceremony by having their degrees conferred "With Honors in Political Science." Moreover, the student's diploma and the record at Memphis State University will reflect this. Details of the program are available in the Political Science Office.

PSYCHOLOGY

The Major: 33 semester hours in psychology courses, including PSYC 1101, 1102, 2301, 2302, 4101, 4504; at least one course each from the 31 —, the 33 —, and the 35 —, series; and 6 additional hours at or above the 3000 level.

The Minor: 18 semester hours, in psychology, including PSYC 1101, 1102, 2301 (or equivalent), 2302, and 6 additional hours at or above the 3000 level.

SOCIOLOGY AND SOCIAL WORK

SOCIOLOGY

The Major: 30 semester hours in sociology, including SOCI 1111, 3311, 3322, 4210 or 4211, and completion of requirements in one of the following areas of concentration.

GENERAL SOCIOLOGY: 18 additional semester hours in sociology including at least 9 upper division hours.

MANPOWER: This concentration is open to the student who majors in sociology and who is accepted into the interdisciplinary Manpower program. SOCI 3831, 4842, and 12 additional semester hours in sociology; plus MGMT 3110, ECON 3810, and 3811.

SOCIAL RESEARCH: 9 additional semester hours from the following: SOCI 4340, 4632, 4730, 4912; plus 9 additional semester hours in sociology.

URBAN SOCIOLOGY: This concentration is open to the student who elects a double major in Sociology and Urban Studies. SOCI 4420, 4620, 4631, and 9 additional semester hours in sociology; plus 24 additional semester hours from the Urban Studies Curriculum.

The Minors:

SOCIOLOGY: 18 semester hours in sociology, including SOCI 1111.

SOCIAL RESEARCH: 18 semester hours in sociology, including SOCI 1111, 3311, 3322, and 9 hours selected from the following: SOCI 4340, 4632, 4730, 4912.

IMPORTANT NOTE: The social research minor may be elected only by students who have majors in the social sciences.

SOCIAL WORK

The Major: 32 semester hours including SOCI 1111, SWRK 2911, 3901, 3902, 3903, 3904, 4830, 4932, 4933, and one upper division course in social research. BIOL 1600 is required.

The Minor: 18 semester hours in sociology and social work courses, including SOCI 1111, SWRK 2911, 3901, 3902, and six additional upper division semester hours in social work courses.

The Fogelman College of Business and Economics

M. E. BOND, Ph.D., *Dean*
Room 432, Business Administration Building

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered (B.B.A.)
Accountancy	Accounting		Bachelor of Business Administration
Economics	Business Economics		Bachelor of Business Administration
Finance, Insurance, and Real Estate	Finance		Bachelor of Business Administration
	Insurance		Bachelor of Business Administration
	Real Estate		Bachelor of Business Administration
Management	Management	(1) General Management (2) Production Management (3) Personnel Administration and Industrial Relations (4) Quantitative Methods and Business Systems	Bachelor of Business Administration
	Management Information Systems		Bachelor of Business Administration
Marketing	Marketing	(1) Advertising (Marketing Communications) (2) Agrimarketing (3) General Marketing (4) Retailing (5) Sales (6) Transportation and Logistics	Bachelor of Business Administration
Office Administration	Office Administration	(1) Secretarial (2) Office Management (3) Legal Office Management	Bachelor of Business Administration
	Legal Assistant		Certificate
Interdisciplinary Programs	International Business†		Bachelor of Business Administration
	Entrepreneurship		Certificate

†In the B.B.A. degree, Foreign Languages may be used as a collateral or second major to accompany International Business.

PURPOSE

The function of The Fogelman College of Business and Economics is to provide the basic education necessary to prepare a person to enter the profession of business. A significant characteristic of the college is that it provides for concentration in the basic areas of economics and business, not as a substitute for, but as a part of a broad liberal education. From forty to sixty per cent of the course work taken for the Bachelor of Business Administration degree (a required minimum of 40 per cent) is taken in such areas as the humanities, the natural and physical sciences, and the social sciences.

The undergraduate and graduate programs of the college are fully accredited by the American Assembly of Collegiate Schools of Business.

Areas of Professional Training

The Fogelman College of Business and Economics offers a wide selection of general and specialized fields, each of which has programs designed to prepare students for a variety of careers:

CAREERS IN ACCOUNTANCY: Accounting is a vital activity in any business. The increased complexity of financial records resulting from federal regulations and the expanded use of automation necessitates a highly technical background for persons who prepare financial reports. The Department of Accountancy administers the testing program of The American Institute of Certified Public Accountants, the national scope of which enables students to check their individual ratings with national averages. Graduates with a major in accounting are qualified to take the Certified Public Accountants' examination in Tennessee; students desiring a career in public accounting are encouraged to intern with a public accounting firm in their senior year.

CAREERS IN ECONOMICS: A sound understanding of our economic system is essential for today's businessman. In addition, business employs the professional economist for forecasting and explaining the effect of changing economic variables. Many economists are employed by government for comparable reasons. Training in economics is designed to increase awareness of economic problems and encourage the student to analyze alternative solutions.

CAREERS IN FINANCE, INSURANCE, AND REAL ESTATE: Due to the greatly increased recognition given to managing the financial operations of a business, with its increased complexity and newer techniques, considerable demand has developed for those skilled in managing the financial flows of a business.

The risk factor involved in both business and life is beyond man's control. To meet this challenge courses in insurance can be highly rewarding for the college graduate. The department offers preparation for careers in property insurance, life insurance, and risk management.

The ever increasing growth in population, with a constant supply of real estate, demands that the businessman have a working knowledge of real estate problems. Courses are offered to prepare students for both private practice and to function as an integral part of a business organization.

CAREERS IN MANAGEMENT: The effective manager of today must have competence in many disciplines, an understanding of a wide variety of relationships and the ability to analyze evolving management requirements.

Effective adaptation of management to such emergent conditions as the con-

tinued growth of science and technology, population, and large scale organization demands a thorough knowledge of management process theory.

The management programs of study are designed to provide professional preparation in the management of business and economic affairs. Opportunities are increasing, as well, in governmental agencies, foundations, hospitals, and other types of organizations.

The Management Information Systems program is intended to produce individuals whose knowledge of business systems, computer systems, and systems documentation will allow them to design and select that information necessary for effective decision making in an organization. It is also intended to provide sufficient background to enable professional growth in a rapidly expanding field.

CAREERS IN MARKETING: The Department of Marketing provides an educational experience for those who are interested in such areas as retailing, wholesaling, industrial marketing, purchasing, advertising, sales management, agrimarketing, transportation and logistics, and marketing research. Careers in marketing provide a high degree of freedom, mobility, security, challenge, and a high level of monetary reward.

Students who wish to teach marketing (distributive education) in high schools, technical institutes, and junior colleges should minor in Distributive Education in The College of Education. For certification requirements, see *Teacher Certification* in The College of Education section.

CAREERS AS PROFESSIONAL SECRETARIES, OFFICE MANAGERS, LEGAL ASSISTANTS, AND LEGAL ADMINISTRATORS: The value of a secretary, either man or woman, with a university degree is receiving increasing recognition by business executives; the same thing is true in the field of office management. Legal assistants and legal administrators are also in demand. Thorough training in both fields is provided by the Department of Office Administration.

CAREERS IN BUSINESS EDUCATION: In cooperation with The College of Education, The Fogelman College of Business and Economics assists in the preparation of students to teach business subjects in the secondary schools. A student with a major in any one of the six departments of the college can qualify for a high school teaching certificate by completing the certification requirements as outlined in the description of programs for The College of Education.

CAREERS IN INTERNATIONAL BUSINESS: The Fogelman College of Business and Economics, with the cooperation of the Office of International Studies, offers an interdisciplinary program leading to the Bachelor of Business Administration degree with a major in international business. The International Business Program provides the students with broad theoretical and practical skills that will prepare

them to meet challenges of a career in an international business field. Students will, when possible, be afforded the opportunity of working in an international company, in this country or abroad, in order to acquire practical, first-hand knowledge of international operations.

The Pre-Law Curriculum

A student enrolled in The Fogelman College of Business and Economics who wishes to be prepared for entrance to law school will qualify for the Bachelor of Business Administration degree. Any major in The Fogelman College of Business and Economics may be selected, and the regular program for that major, as outlined in the *Catalog*, should be followed.

Honors Program

ADMISSION

Lower Division: Incoming freshmen who score at least 26 on the ACT or its equivalent on other tests are invited to participate and are eligible to enroll in the designated honors sections of this College's lower division courses.

Transfer or students presently enrolled in Memphis State University are eligible to enroll in the designated honors sections of this College's lower division courses if they have a minimum 3.00 grade point average or the recommendation of a faculty member.

Upper Division: To be eligible to enroll in the designated honors sections of this College's upper division courses, students must have a minimum 3.25 grade point average in course work taken in the Fogelman College of Business and Economics and be recommended by a faculty member.

RETENTION

The participating honors student must maintain a minimum 3.00 grade point average in lower division and upper division honors courses and have a minimum 3.25 grade point average in all courses taken in the Fogelman College of Business and Economics in order to continue in the College's Honors Program.

REQUIREMENTS

In order to qualify for "Honors in Business", in addition to an Honors Thesis, a student must successfully complete a minimum of 18 semester hours from the following:

1. No more than 6 hours from Honors Sections in: ACCT 2010, 2020; ECON 3310, 3320; MGMT 2710, 2711, 2750; or ECON 2130, 2140; MATH 1401, 1402.
2. At least 12 hours from Honors Sections in: ECON 4111; FIR 3011, 3130, 3410; MGMT 3110, MGMT 4710; MKTG 3010; OFAD 3510.

In rare circumstances, additional contract work and enrollment in a non-honors section of a required upper division course may be accepted as upper division honors credit. The contract work must have the

prior approval of the College Honors Committee.

3. Must complete honors course work in at least 3 disciplines (e.g., Accounting; Economics; Finance, Insurance, and Real Estate; Management; Marketing; or Office Administration).

4. No more than nine (9) hours in any one discipline may count toward the 18 hours of honors course work.

5. A minimum grade of B is required in each honors course in order for it to count toward fulfilling the honors course requirement, but regular credit for the course will be earned if the grade is lower than a B.

THESIS

During their senior year, prospective honors graduates must complete successfully an honors thesis, which in addition to the 18 hours of honors course work, will qualify them to graduate "With Honors in Business". The honors thesis may result from a senior seminar (e.g., ECON 4920), or an independent study course (e.g., ECON 4996, UNHP 4300). Students, however, may elect to write a thesis without receiving formal credit toward graduation.

Students will select a major advisor and one other faculty member to serve as members of their thesis committee. The College Honors Committee will also designate a representative to serve as a third member of a student's thesis committee. Students must submit a thesis proposal, signed by their major advisor and the other two committee members, to the College Honors Committee for approval. Upon completing the thesis, the Thesis Committee will recommend, by majority vote, whether to accept or reject a student's thesis.

CERTIFICATE OF ACHIEVEMENT

Students who complete a minimum of 12 hours in Honors course work with a minimum of 3.25 grade point average and a minimum of B in each of the Honors courses will receive a Certificate of Achievement.

DESIGNATION OF "WITH HONORS IN BUSINESS"

Students who complete 18 hours (meeting the restrictions listed) with an acceptable Honors Thesis and a minimum 3.25 grade point average in all courses taken in the Fogelman College of Business and Economics, and in all Honors courses taken in this College, with a minimum overall grade point average of 3.00 will have earned the designation of "With Honors in Business" which will appear on the transcript and diploma.

ORGANIZATION OF THE COLLEGE

The Fogelman College of Business and Economics comprises six academic departments: Accountancy; Finance, Insurance and Real Estate; Economics; Man-

agement; Marketing; and Office Administration. These departments offer a variety of majors and minors, the detailed requirements for which are listed later in this section with departmental requirements. The interdisciplinary International Business Program centered in this college offers an undergraduate major in International Business; requirements are listed in the section pertaining to departmental requirements. In addition there are two research departments: Bureau of Business and Economic Research and Center for Manpower Studies.

Academic Advising

Every student entering The Fogelman College of Business and Economics will be assigned an advisor by the college's Advising Office (BB 357). The advisor will assist the student in the selection of appropriate courses, and provide the opportunity for meaningful discussion regarding career goals, past academic experience and future academic growth and progress as it relates to the student's development. This assistance, however, does not in any way relieve the student of the primary responsibility of studying the *Catalog* and fulfilling all the requirements for the degree.

Intent to Graduate

Intent to graduate forms are filed with the Graduation Analyst in The Fogelman College of Business and Economics (BB 357). Students are requested to schedule an appointment before the established application deadline published in each current *Catalog* or *Schedule of Classes*. Deadlines are strictly enforced. At this time, an audit of the prospective graduate's academic record is conducted, and the applicant will be provided with an official graduation agreement indicating the remaining degree requirements.

RESIDENCE REQUIREMENTS

Residence requirements for a degree in business administration are as follows: (1) the senior year must be completed at Memphis State University, (2) at least 33 hours of upper division business courses must be taken at Memphis State University, and (3) 12 of the 33 upper division business administration hours must be in the major field.

A student transferring credits from a two-year (lower division) collegiate institution must complete a minimum of 60 semester hours in an accredited senior institution.

MINOR. In order to earn a minor in this college, a transfer student majoring in one of the other colleges of the University or in this college must earn at Memphis State University at least 6 upper division business administration hours of the total number of hours required for that minor.

See University Residence Requirements in the *Graduation from the University* section.

TRANSFER CREDIT

The official evaluation and acceptance of transfer credit is the responsibility of the Transfer Affairs section of the Office of Admissions. The Undergraduate Advising Office (Room BB357) of the Fogelman College of Business and Economics, however, will be happy to answer inquiries regarding the applicability of transfer course work for the completion of the B.B.A. degree.

If a student transfers credit in required business courses which are classified as upper division in this college, but were taken as lower division credit, or taken at a two-year (lower division) institution, these courses must be *repeated or validated by examination*.

Each transfer student must: (1) have completed all required lower division business administration courses with a minimum grade of C in each; (2) have a minimum quality point average of 2.25 in all required lower division business administration core courses and in MATH 1211 (College Algebra); (3) have accumulated 55 hours of course work including the required 12 semester hours of English, Math 1211 and 1312 and the lower division business administration core; (4) make application for admission to upper division business administration course work and for admission to business administration major programs (application forms may be obtained from the Office of the Assistant to the Dean for Undergraduate Programs); and (5) maintain a minimum quality point average of 2.25 in all required business administration course work taken at Memphis State University.

B.B.A. DEGREE REQUIREMENTS

1. To qualify for the Bachelor of Business Administration (B.B.A.) degree, the student must complete a minimum of 132 semester hours with a minimum overall quality point average of 2.00 and must meet additional quality point average requirements described below. (The Office Administration major with a concentration in Legal Office Management requires 139 semester hours.)

2. A minimum quality point average of 2.25 is necessary for all required lower division and upper division business administration core courses and in the required mathematics course. The required lower division courses are: ACCT 2010, 2020; ECON 2110, 2120; MGMT 1010 (if taken), 2710, 2711, 2750; and MATH 1211.

3. A minimum of 40% (53 hours) of the 132 hours required for the degree must be from outside the College (except for ECON 2110 and 2120), and 40% (53 hours) of the 132 semester hours required must be from within the College.

4. A minimum grade of C must be earned for each required course in the lower division and upper division business administration core curriculum and in each course required for the major and/or minor. (Transfer students are referred to the section entitled *Transfer Credit*.)

5. B.B.A. students may apply no more than four semesters hours of physical education activity courses to the minimum degree requirements of 132 semester hours.

6. All courses used to satisfy specific degree requirements of this college must be taken on a "letter grade" OR "credit by examination" basis. Hours earned on a "credit/no credit" basis are accepted only in courses which are designated as electives in the student's degree program. Courses taken on an "audit" basis cannot be used to satisfy college requirements.

General Requirements

The college curriculum is organized into a lower division and an upper division:

THE LOWER DIVISION (LD) comprises the freshman and sophomore years, the first four semesters of university work. Courses offered in the lower division are numbered from 1000 through 2999, and the student must register consistently for all lower division requirements until they are completed.

THE UPPER DIVISION (UD) comprises the junior and senior years of undergraduate work; courses offered in the upper division are numbered 3000 through 4999.

Any student seeking a degree in the Fogelman College of Business and Economics must: (1) have completed all required lower division business administration courses with a minimum grade of C in each; (2) have a minimum quality point average of 2.25 in all required lower division business administration core courses and in MATH 1211; (3) have accumulated 55 hours of course work including the required 12 semester hours of English, Math 1211 and 1312 and the lower division business administration core; and (4) make application for admission to upper division business administration course work and for admission to business administration major program. Application forms may be obtained from the Office of the Assistant to the Dean for Undergraduate Programs.

Any exception to the above requirements must be granted by the Dean of the Fogelman College of Business and Economics or the Assistant to the Dean for Undergraduate Programs.

I. NON-BUSINESS CURRICULUM (53 hours minimum)

English (12 hours): ENGL 1101, 1102 with minimum grade of C; and two of the following ENGL 2101, 2102, 2103, 2104, 2105, or 2106.

History (6 hours): HIST 2601, 2602 (U.S. History). (HIST 3900 — Tennessee History may be substituted for one of the U.S. History courses.)

Natural/Physical Science (with lab) (6 hours minimum): although the science courses required to fulfill this requirement do not have to be in the same discipline, each must have laboratory experience. Students majoring in Marketing with a concentration in Agrimarketing are required to take Biology and/or Chemistry.

Mathematics (6 hours): MATH 1211 (College Algebra) with a minimum grade of C and MATH 1312 (Elementary Calculus).

Humanities (3 hours): one of the following — ART 1101 (Introduction to Art), MUHL 1101 (Music Appreciation), THEA 1551 (Introduction to Theatre), HIST 1301 or 1302 (Development of World Civilization I or II), PHIL 1111 (Introduction to Philosophy), or Foreign Language.

Social Science (3 hours): one of the following — ANTH 1400 (Urban Anthropology of Contemporary America), POLS 1100 (American Government), PSYC 1101 (General Psychology), or SOCI 1111 (Introductory Sociology).

Speech (3 hours): one of the following — COMM 1211 (Voice and Articulation), COMM 1311 (Public Speaking), or THEA 1411 (Basic Oral Interpretation).

Economics (6 hours): ECON 2110 (Introduction to Macroeconomics), ECON 2120 (Introduction to Microeconomics) with a minimum grade of C in each course.

Physical Education (two semesters of Physical Education activity courses): Only 4 semester hours of physical education activity may be counted toward the minimum of 132 hours required for the B.B.A.

Non-Business Electives (lower division or upper division to bring the total of non-business hours earned to 53).

II. BUSINESS CORE CURRICULUM

Lower Division (18-19 hours)

A minimum grade of C is required in each of the following:

MGMT 1010 Introduction to Business (3) FRESHMAN ONLY.
NOTE: If taken by student with 25 or more hours, credit will not count for B.B.A. degree.

MGMT 2710 Business Statistics I (3)

MGMT 2711 Business Statistics II (3)

MGMT 2750 Management Information Systems with Computer Applications (3)

ACCT 2010 Fundamentals of Accounting I (3)

ACCT 2020 Fundamentals of Accounting II (3)

ACCT 2720 Accounting Lab (1) (required of Accounting majors and minors only)

III. BUSINESS CORE CURRICULUM

Upper Division (24 hours)

A minimum grade of C is required in each of the following:

ECON 4111 Managerial Economics (3)

FIR 3011 Business Law (3)

FIR 3130 Legal, Social, and Political Environment of Business (3)

FIR 3410 Business Finance (3)

MGMT 3110 Organization and Management (3)

MGMT 4710 Business Policy (3) (Course to be taken last or next to last semester before graduation)

MKTG 3010 Principles of Marketing (3)

OFAD 3510 Business Communications (3)

(Transfer students are referred to the section *Transfer Credit*.)

IV. THE MAJOR

Each student, with the assistance of an advisor in the College, not later than the beginning of the junior year, will select a major and if available an area of concentration within the major. The specific courses required by each department for the satisfaction of its major are listed in the section that follows.

V. GENERAL ELECTIVES

Lower division or upper division courses to bring the total to 132 semester hours for the degree.

VI. COURSES NOT APPLICABLE TOWARD B.B.A. DEGREE

ENGL 1100, MATH 1000, and MATH 1100 may not be used to fulfill the 132 hour minimum required for the B.B.A. degree although they carry college credit and are included in the total hours earned

and in the cumulative quality point average.

VII. THE MINOR

A student majoring in The Fogelman College of Business and Economics is not required to have a minor; however, such an option is available.

A student majoring in one of the other colleges of the University may take a *minor* in one of the departmental areas. (See Residence Requirements for The Fogelman College of Business and Economics.)

DEPARTMENTAL REQUIREMENTS FOR MAJORS AND MINORS

Department of Accountancy

The objective of the baccalaureate program with a major in accounting is to provide basic conceptual accounting and business knowledge as a foundation for accounting career development; area specialization (tax, public accounting, managerial) may be obtained at the graduate level. An accounting major or minor must have a grade of C or better in every course attempted in the Department of Accountancy.

ACCOUNTING

The Major: ACCT 2720 (Laboratory) and 24 upper division semester hours in accounting courses as follow:

ACCT 3110 and 3120, 3310, 3510, 4210, 4240, 4450, 4610. (ACCT 2720, Accounting Laboratory, must be taken prior to ACCT 3120, Intermediate Accounting II, or an additional 4000 level accounting course is required.)

The Minor:

For students whose major is in another college of the University: ACCT 2010, 2020, 2720, 3110, 3120. One of the following: 3010, 3310. One of the following: 3510, 4240, 4450.

For students whose major is in another department in the Fogelman College of Business and Economics: ACCT 2010, 2020, 2720, 3110, 3120, 3510. One of the following: 3010, 3310.

CPA PREPARATION PROGRAM

The CPA Preparation Program is a non-degree series of credit courses in accounting which provides the accounting "core" courses in an accelerated and convenient format. The program is designed especially for those who are planning to take the CPA exam, but who lack credit for the specific accounting courses required by the State Board of Accountancy. Others who will benefit from the program are those desiring to enter a graduate program requiring all or some of these courses as prerequisites.

The Tennessee State Board of Accountancy requires that applicants for the CPA exam have either an accounting degree or a non-accounting degree plus credit for 24 hours of accounting course credit. The CPA Preparation Program offers a feasible means of attaining credit for these specific courses: ACCT 2010, 2020, 3110, 3120, 4210, 3510, 3310, 4240. NOTE: An additional 12 hours is required by the Board from the areas of economics, computers, business law, money and

banking, mathematics, or statistics. Applicants who lack previous credit in these areas should discuss with the Program Director the alternative means available for obtaining that credit.

Because of prerequisite requirements, several of these courses must be taken in sequential order. Accordingly, the time normally necessary to obtain credit for these 24 hours can be substantial. By offering these courses sequentially in seven week segments, the program allows participants to earn 24 hours credit in thirteen and one-half months instead of the two or more years equivalent instruction might involve. Additionally, the course schedule requires only two evenings per week and consistency in schedules is maintained from course to course. Classes are held on Tuesday and Thursday evenings, 6:00 P.M. to 9:00 P.M. Each course is seven weeks (14 meetings - 42 class hours) in length. The eight-course sequence generally begins each July and January with Fundamentals of Accounting 2010. If a person has credit (at least a C) for one or more of the courses, that person can begin with the next course in the sequence, or, to refresh the memory, can retake on an "audit" basis the courses for which a grade has been previously earned.

Interested candidates for the Program should contact the Program Director, Department of Accountancy in The Fogelman College of Business and Economics.

FIVE YEAR DEGREE PROGRAM IN ACCOUNTING

The Department of Accountancy also offers a five-year professional accounting program resulting in the awarding of the B.B.A. degree and Master of Professional Accountancy (M.P.Acc.) degree upon the satisfactory completion of five years of study.

Admission Standards to Five-Year Program: a student may apply upon the completion of the lower division core in business required for a major in the Fogelman College of Business and Economics if an overall grade point average of 2.5 and an average of 3.0 in accounting courses has been earned.

Required Core Courses in the Upper Division: the required core courses in the upper division for the B.B.A.; PHIL 4513, ECON 4120 or FIR 4440; and two of the following: MGMT 3750, 3760, 4790.

The Major in Accounting: the 24 semester hours in the Accounting major listed above.

Retention Standards: an overall grade point average of 2.75 with an average of 3.25 in accounting courses by the end of the sixth semester; an overall grade point average of 3.0 with an average of 3.5 in accounting courses by the end of the eighth semester.

Admission to Fifth Year of Study: upon completion of all of the above requirements the student is eligible to be admitted to the fifth year of study in graduate school upon attaining a score of 450 or higher on the Graduate Admission Test (GMAT). In the event that a student does not elect to enter the fifth year of study, the B.B.A. degree in Accounting will be awarded to those who have completed all of the above requirements for graduation.

Graduate Accounting Requirements: see the Memphis State University Graduate Catalog.

Department of Economics

The Department of Economics has two major objectives: to function as a service department for other departments in The Fogelman College of Business and Economics, as well as the other colleges of the University, and to prepare students

majoring in economics by providing a solid foundation in the principal areas of economics.

In general, the department attempts to give economics majors a solid background in economic theory, quantitative economics and applied economics.

ECONOMICS

The Major (B.B.A.): A minimum of 21 upper division semester hours in courses as follows:

ECON 3310, 3320, 4920 and four additional upper-division courses selected with the approval of the department advisor.

The Major (B.A., College of Arts and Sciences): The student is required to meet the requirements for the Bachelor of Arts degree plus these specific major requirements:

ECON 1010 or 2110, 2120; 3310, 3320, 4920, and five additional upper-division courses, for a total of 30 semester hours, selected with the approval of the department advisor.

The Minor:

For students whose major is in another college of the University: 18 semester hours in economics courses, including ECON 1010 or 2110, 2120, 3310, 3320, and 6 additional upper division hours in courses as approved by the department advisor.

For students whose majors are in The Fogelman College of Business and Economics: Nine additional upper division hours in economics approved by the department advisor, including 3310 and 3320.

Honors Program:

All students who receive a grade of B or better in ECON 2130 or 2140 are eligible for the program. Entry to the program can also be obtained through the recommendation of a member of the faculty to the Economics Departmental Honors Committee. A student must maintain an average grade of at least 3.25 in economics to continue in the program and must have an average grade of 3.5 or better in economics to graduate with honors in economics. Honor students take special courses during the junior and senior years, particularly the honors sections of ECON 3310 and 3320, and write a senior research paper. At commencement they are awarded the special distinction "with honors in Economics". Details of the program are available at the Economics Department office.

Department of Finance, Insurance, and Real Estate

The primary objective of the department is to provide the basic concepts, principles and analytical tools essential for business decisions in the fields of finance, insurance and real estate. The department curriculum is designed to provide a broad background for effective functioning within each discipline or in related business and governmental fields. More specifically:

(1) Finance majors study the environment, theory and techniques of decisions on the acquisition and allocation of funds by business firms, including the applied areas of investment and financial institutions.

(2) Insurance majors study risk theory, risk management, life, health, and property-liability insurance and their relationships to the other disciplines in business administration. The insurance program is also designed as preparation for parts of the CPCU and CLU examinations.

(3) Real Estate majors will be provided the basic theories and practices of urban land use and economics. Exposure will be to real estate principles, valuation, investment analysis and finance, legal environment, and development.

FINANCE

The Major: A minimum of 21 upper division semester hours in courses as follows:

FIR 3710, 3720, 4440, 4610, and nine additional upper division hours in courses selected with the approval of the advisor.

The Minor:

For the student whose major is in The Fogelman College of Business and Economics: Nine upper division hours in finance approved by the department chairman.

For the student whose major is within another college of the University: ACCT 2010 and 2020; ECON 2110, 2120, 3610; FIR 3410, 3710. Three additional upper division hours approved by the department chairman.

INSURANCE

The Major: A minimum of 21 upper division semester hours in courses, as follows:

FIR 3810, 4810, 4820, and a minimum of twelve additional upper division hours in courses selected with the approval of the advisor.

The Minor:

For the student whose major is in The Fogelman College of Business and Economics: FIR 3810 and six additional upper division hours in insurance approved by the department chairman.

For the student whose major is within another college of the University: ACCT 2010; ECON 2110, FIR 3011, 3130, 3810, and six additional upper division hours in insurance approved by the department chairman.

REAL ESTATE

The Major: A minimum of 21 upper division semester hours in courses, as follows:

FIR 3310, 4310, 4320, 4340, 4350, and a minimum of 6 upper division hours in courses selected with the approval of the advisor.

The Minor:

For the student whose major is in The Fogelman College of Business and Economics: FIR 3310 and six additional upper division hours in real estate approved by the department chairman.

For the student whose major is within another college of the University: ACCT 2010; ECON 2110; FIR 3011, 3130, 3310, and six additional upper division hours in real estate approved by the department chairman.

Department of Management

The effective manager of today must have competence in many disciplines, an understanding of a wide variety of relationships, and the ability to analyze evolving management requirements. Regardless of the functional speciality, the professional manager must also be a leader of people who knows how to put together and motivate groups of people serving the goals of the organization.

Effective adaptation of management to such emergent conditions as the continued growth of science and technology, populations, and large scale organization demands a thorough grasp of management process theory including planning, organizing and motivation, and controlling of operations.

The management curricula include the following areas: (1) general management; (2) personnel administration and industrial relations; (3) production management; and (4) quantitative methods and business systems.

Students selecting the area of general management will focus on integration of operations and environments. This option is designed for those students who desire a program which allows for flexibility in the choice of careers in management.

The personnel administration and industrial relations option covers the traditional areas of personnel, collective bargaining, labor legislation, wage and salary administration. Also developments in the behavioral sciences are included in this area.

The production and operations management option is concerned with planning and operations systems to yield products and services. Production operations in non-manufacturing industries

are considered as well as those of manufacturing firms.

Quantitative methods and business systems involve the use of mathematical and statistical techniques to solve business problems. Such techniques often require the utilization of computers for their solution. Thus this curriculum incorporates three related areas of study: Statistics, mathematical methods (operations research), and computer utilization.

MANAGEMENT

The Major: a minimum of 21 upper division semester hours, including MGMT 3510, 4420, and courses as listed in the following concentration areas:

GENERAL MANAGEMENT: MGMT 3215, 4790; ACCT 3010. The remaining 6 hours of the 21 hours minimum for the major may be selected from any upper division semester hours in Management or any 3 upper division hours in Management and one of the following courses or two of the following courses with not more than one in any department: ACCT 3310; ECON 3610; FIR 4440; MKTG 3140, 3610.

PERSONNEL ADMINISTRATION AND INDUSTRIAL RELATIONS: MGMT 3215, 4210, 4220, 4230, and 4240.

PRODUCTION MANAGEMENT: MGMT 4510, 4511 and at least one of the following is required: TECH 4462, 4464, 4466. The remaining hours of the 21 hour minimum required for the major will be selected from the following courses: MGMT 3760; ACCT 3010, 3310; ECON 4120; MKTG 4220.

QUANTITATIVE METHODS AND BUSINESS SYSTEMS: MGMT 3750, 3760, 3780, 4755, 4780.

The Minor:

For the student whose major is in The Fogelman College of Business and Economics: MGMT 3510, 4420, and 3 additional semester hours of upper division coursework in management.

For the student whose major is within another college of the University: MGMT 3110, 3510, 4420, and 9 additional semester hours, at least 6 of which must be in management and the remainder in The Fogelman College of Business and Economics.

MANAGEMENT INFORMATION SYSTEMS

The Major: MGMT 2760, 2780 and 18 upper division semester hours in Management courses as follows: MGMT 3750, 3760, 3780, 4755, 4780, 4785.

Department of Marketing

The objective of the Department of Marketing is to provide a broad concept of the marketing process and to develop an understanding of all the factors involved in the assembly and distribution of goods and services. Marketing majors may choose from among the six areas of concentration as outlined below. Emphasis is placed upon the practical application of marketing concepts. This approach teaches entry level skills while preparing for future advancement to top positions in marketing management.

A marketing major or minor must have a grade of C or better in every marketing course attempted.

MARKETING

The Major: a minimum of 21 upper division semester hours in marketing courses (Agriculture concentration requires 24 upper division semester hours), as follows:

MKTG 3012, 3610, 4080, 4901. One of the marketing concentrations listed below (3 hours must be 4000 level).

ADVERTISING (Marketing-Communications) Mass communication media, advertising agencies, advertising departments, advertising decisions, and other advertising activities: MKTG 3140, 3170, 4150.

AGRI-MARKETING: (12 hours) Careers in marketing in the agribusiness industry, MKTG 3710, 4720, 4750, and FIR 3770. Note: agribusiness concentration requires one less upper division BA elective and six hours of natural science with lab from among the following courses: BIOL 1001, 1002, 1600, 3050; CHEM 1051, 1052, 1111, 1112. Students in this concentration are encouraged to select courses in Geography and/or Geology as general electives.

GENERAL MARKETING: Allows a concentration in marketing without specialization. (A minimum of 9 semester

hours, at least 3 hours at the 4000 course level): MKTG 3140, 3320, 3620, 4410, 4530.

RETAILING: Background in the operation and management of retail establishments: MKTG 3320, 3330, and a 4000 level course approved by the department chairman.

SALES: Field of sales from basic salesmanship through sales management; both theoretical and practical aspects: MKTG 3410, 4410, and one of the following courses: MKTG 4210, 4420, 4430.

TRANSPORTATION AND LOGISTICS: Background for careers with transportation companies, industrial firms or governmental agencies. Interfaces among the nation's transportation system, the firm's logistics network, and public policy. Total of nine hours selected from these courses: 3-6 hours from: MKTG 3620, 3630. plus: 3-6 hours from: MKTG 4610, 4620, 4692.

The Minor:

For the student whose major is in another college of the University: ACCT 2010; ECON 2110; and either (1) MKTG 3010; 9 semester hours from the marketing core (MKTG 3012, 3610, 40B0, 4901); and 6 hours from one of the marketing areas of concentration upon approval of the department chairman OR (2) MKTG 3010; 6 hours from the following courses: MKTG 3012, 3610, 40B0; and any 9 hours of marketing courses approved by the department chairman.

For the student whose major is in The Fogelman College of Business and Economics: Twelve (12) hours of marketing courses approved by the department chairman.

Department of Office Administration

The objectives of the Department of Office Administration are to provide a broad background for an executive secretarial role in business; to provide the opportunity for sufficient competency to enter and advance in the area of office management; and to provide the opportunity for the specialization and certification for the graduate to teach business education in the secondary schools.

The student planning to major in office administration will take in the freshman year OFAD 1210 and 1220, Elementary Typewriting and Intermediate Typewriting. If the student has had previous training in typewriting, 1210 will be omitted and replaced with 1220 and a higher numbered typewriting course, or one semester of an approved elective.

The student planning an area of concentration in office administration-secretarial will take in the sophomore year OFAD 2120 and 2130, Fundamentals of Shorthand and Intermediate Shorthand. If the student has had previous training in shorthand, 2120 will be omitted and replaced with 2130 and a higher-numbered shorthand course, or one semester of an approved elective. Students planning an area of concentration in office administration-management may omit shorthand from their programs.

No more than three courses (9 semester hours) in typewriting may be applied toward satisfaction of the degree requirements by a student with high school credit in typewriting.

Students must earn a grade of C or better in typewriting or shorthand courses before they can register for the next course in the subject.

OFFICE ADMINISTRATION

The Certificate (Legal Assistant): a minimum of 60 semester hours is required.

27 hours as follows: ENGL 1101, 1102, ACCT 2010, 2020; COMM 1311; HIST 2601, 2602; 3 hours in one of the following: PSYC 1101, SOCI 1111, POLS 1100, ANTH 1400, GEOG 1401; 3 hours in one of the following: ART 1101, MUHL 1101, THEA 1551, HIST 1301, 1302, PHIL 1111, or foreign language.

33 hours in Office Administration as follows: OFAD 2210, 2211, 2212, 2213, 2214, 2215, 2216, 3217, 3218, 3219, and 3220.

The Major (Legal Office Management Concentration): in addition to the 33 semester hours in Office Administration courses listed above for the Legal Administration Certificate, a minimum of 21 upper division hours in courses as follows: OFAD 3250, 4330, 4350, CJUS 3521, and three of the following: OFAD 4410, 4320, 4340, 4420, 4430.

The Major (Secretarial Concentration): a minimum of 21 upper division semester hours of office administration courses, as follows: OFAD 3140, 3250, 4270, 4320, 4330, and two of the following courses, selected in conference with advisor: OFAD 4161-62, 4340, 4410, 4420.

The Minor (Secretarial Concentration):

For the student whose major is in another college of the University: OFAD 1210, 1220, 2120, 2130, 3140, and upper division hours in two or three additional approved courses in office administration approved by the department chairman. (If the student can demonstrate proficiency in either typewriting or shorthand, he may omit either OFAD 1210 or 2120, thus reducing the hours required for the minor from 21 to 18; a minimum of 18 semester hours is required.)

For the student with a major in other departments of The Fogelman College of Business and Economics: Upper division hours in three additional courses in Office Administration approved by the department chairman.

The Major (Managerial Concentration): a minimum of 21 upper-division semester hours of courses as follows: OFAD 4320, 4330, 4410, 4420; ACCT 3010, and two of the following courses, selected in conference with advisor: MGMT 4210, 4420, 3750; FIR 4610.

The Minor (Management Concentration):

For the student whose major is in another college of the University: ACCT 2010, 2020; ECON 2110, 2120; OFAD 3510, 4410, and upper division hours in two additional courses in office administration approved by the advisor.

For the student with a major in other departments of The Fogelman College of Business and Economics: Upper division hours in three additional courses in office administration approved by the department chairman.

Program in International Business

The primary objective of the International Business Program is to provide a broad interdisciplinary background for a career in international business. Through the study of theoretical and practical aspects of the operations of international and multinational business and through work in several liberal arts disciplines, the graduate of this program should be prepared, after receiving a minimum orientation training in a particular international firm, to apply the knowledge acquired to the solution of problems faced by the company.

For further information concerning this program, contact John J. Reid (Business Administration Building, Room 426C).

INTERNATIONAL BUSINESS

The Major:

The student majoring in International Business must complete the same courses required of all students working toward the B.B.A. degree. For additional requirements during the sophomore and junior years, see the International Business advisor. Students majoring in International Business are required to take six credit hours in foreign language. It is also strongly suggested that the students take more than six hours. Students meeting all the requirements established by The Fogelman College of Business and Economics and the University for the B.B.A. degree and also meeting the language requirements established by the Foreign Language Department for a major in Foreign Language will be conferred a B.B.A. degree with a major in International Business and a second major in Foreign Language.

In the senior year, the student will take 21 semester hours in courses offered by The Fogelman College of Business and Economics, distributed as follows:

15 semester hours (5 courses) from the following group: BA 4000; ECON 4340, 4350, FIR 4550; MGMT 4B10; MKTG 4530.

6 semester hours (2 courses) from the following group: ECON 4111, 4120, FIR 4440; MGMT 3760, 47B0; MKTG 40B0.

Two courses from the College of Arts and Sciences are also required in the senior year. See the advisor.

The Minor:

For the student whose major is within The Fogelman College of Business and Economics: Nine hours from the following courses with the approval of the International Business advisor: BA 4000, ECON 4340, 4350, FIR 4550, MGMT 4B10; MKTG 4530.

For the student who is majoring within another college of the University: The student will take a minimum of 18 hours within The Fogelman College of Business and Economics, at least 9 hours of which must be chosen from the following: BA 4000; ECON 4340, 4350; FIR 4550; MGMT 4B10; MKTG 4530.

The necessary prerequisites for the above courses are in parentheses below:

BA 4000 (Consent of the International Business advisor); ECON 4340 (ECON 2120); ECON 4350 (ECON 2120); FIR 4550 (FIR 3410 or consent of instructor); MGMT 4B10 (MGMT 3110); MKTG 4530 (MKTG 3010).

Certificate in Entrepreneurship

The Fogelman College of Business and Economics awards the Certificate in Entrepreneurship to students who complete the following courses with a grade of C or better: MGMT 4B20, ECON 4340, FIR 4110, and BA 4100 (6 hours). The total number of hours for the certificate is 15. Prerequisites to these courses are: ACCT 2010, 2020; ECON 2110, 2120; FIR 3410; MGMT 2710, 2750, 3110; MKTG 3010.

Pre-Professional Business Administration Minor

The Fogelman College of Business and Economics offers a pre-professional minor (30 hours) for students whose major is in another college of the University. Requirements are as follow:

ACCT 2010, 2020; FIR 3410; ECON 2110, 2120; MGMT 2710, 2750, 3110; FIR 3130; MKTG 3010. Accounting, Economics, and junior standing are prerequisites for 3000 level courses.

The College of Communication and Fine Arts

RICHARD R. RANTA, B.S., M.A., Ph.D., *Dean*
Room 232, Communication Fine Arts Building

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered (B.B.A.)
Art	Art	(1) Art Education (2) Graphic Design (3) Interior Design (4) Ceramics, Painting, Sculpture, Printmaking (5) Design	Bachelor of Fine Arts (B.F.A.)
	Art History		Bachelor of Arts (B.A.)
Journalism	Journalism	(1) Advertising (2) Broadcast News (3) News Editorial (Magazine) (Newspaper) (Photojournalism) (4) Public Relations	Bachelor of Arts (B.A.)
Music	Music	(1) Brass Instruments (2) Church Music (Choral) (Organ) (3) Composition (4) Music History (5) Music Theory (6) Organ (7) Percussion (8) Piano and/or Harpsichord (Chamber Music) (Pedagogy) (Performance) (9) School Music (Instrumental or Vocal) (10) Strings (11) Voice/Opera (Voice) (Opera) (12) Woodwinds	Bachelor of Music (B.M.)
	Commercial Music	(1) Music Business (2) Recording/Engineering	Bachelor of Fine Arts (B.F.A.)
		(1) Studio/Live Performance (2) Composition/Arranging	Bachelor of Music (B.M.)
Theatre and Communication Arts	Theatre and Communication Arts	(1) Broadcasting (2) Communication (3) Film and Videotape Production (4) General Speech and Theatre (5) Theatre	Bachelor of Arts (B.A.)
	Theatre	(1) Performance (2) Design and Technical Production (3) Dance	Bachelor of Fine Arts (B.F.A.)

PHILOSOPHY

The College of Communication and Fine Arts is ultimately focused upon visual and audible symbols, whose rational and emotional values it is the mission of the college to create and explore. In the belief that perception is largely shaped by experience, The College of Communication and Fine Arts offers a range of

symbolically rendered experiences, both individual and collective, in the hope of broadening and sensitizing the perceptions of its students.

The kind of symbolic experience which communicates emerges when, in Ruskin's phrase, "the hand, the head and the heart of man go together." Students in The College of Communication and Fine Arts receive individual and small group instruction toward this end. In the hope of furthering the capacity to impose a pattern

on experience and to recognize the patterns offered by others, students of the college are additionally exposed to courses drawn from a broad base of the liberal arts.

The faculty of the college represents a diversity of academic and artistic backgrounds and interests, reflected not only in its teaching, but also in research and creative activities. It is a faculty united in the attempt to maintain the highest standards in both classroom and studio

work, standards which find their limits at last only in the mystery and wonder of the human experience from which they rise.

PURPOSES

The College of Communication and Fine Arts has four primary functions. First, it offers courses of study aimed at preparing its students to work toward careers in the fine or applied arts, communications, or the performing arts, whether as practitioners, teachers, artists, or consultants. Second, the college affords broad exposure and instruction in fine arts and communication to students of other colleges in the University whose degree programs may be enhanced by such exposure. Third, with a view toward individual professional growth as well as general cultural enhancement, the college vigorously promotes both scholarly research and artistic production on the part of its faculty. Finally, the college seeks to enrich the cultural atmosphere of both the University and the community at large through a continuing variety of public programs, to include art exhibitions, media presentations, dramatic productions, concerts, recitals, lectures, seminars, debates, workshops, festivals, and the like.

Through the diversity of these constituent elements, the college reflects the unity and challenge facing the communicative artist and scholar. Ultimately it is our goal to foster a more intense and profound awareness of the broad range of human experience from which the college derives its pertinence and vitality.

ORGANIZATION

The College of Communication and Fine Arts comprises four academic departments: Art, Journalism, Music, and Theatre and Communication Arts. The requirements for the majors and minors offered by these departments are listed later in this section.

RESIDENCE REQUIREMENTS

University residence requirements are explained in detail in the *Graduation from the University* section. A transfer student in The College of Communication and Fine Arts must earn at least 6 semester hours in residence in the major subject and at least 3 semester hours in the minor. These credits may be earned only through regular class enrollment for a letter grade.

TEACHER PREPARATION

Students enrolled in a degree program of The College of Communication and Fine Arts who wish to prepare themselves for teaching careers in the secondary schools of Tennessee may meet the state certification requirements while pursuing their chosen majors. Detailed certification requirements are outlined under Requirements for Teacher Certification in the *Graduation from the University* section. An application to enter the Teacher Education Program must be filed with the College of Education General Advisor.

DEGREE REQUIREMENTS

Degrees Offered

A student may earn a Bachelor of Fine Arts, Bachelor of Music, or Bachelor of Arts degree, by majoring in one of the four departments which comprise The College of Communication and Fine Arts. The following is an outline by departments of all majors and concentration areas offered by the departments in the College of Communication and Fine Arts.

A minimum grade of C is required in every course applicable toward a major or minor.

Every student should be aware that the mere completion of courses outlined below with a grade of C or better does not guarantee classification as a major or minor in the discipline concerned; *the student must be recommended by the chairman of the department in which the major or minor is sought.* If, in the opinion of the chairman, the quality of the student's work is not high enough, additional work, the repetition of courses, or other evidences of superior scholarship may be required.

Elective credit in the College of Communication and Fine Arts may be granted for validated learning from experience or non-traditional instruction. Guidelines for this procedure may be obtained in the office of the Dean of the College of Communication and Fine Arts.

The college requires a minimum of four semester hours of physical education activity courses, one-half of which minimal requirement may be satisfied by two semester hours of Marching Band. A student may elect to take the courses on a credit/no-credit basis. Only students in the following programs may apply more than 8 semester hours of Physical Education toward the specified minimum degree requirement: B.F.A. Theatre major with a concentration in Performance or Dance, B.A. Theatre major, Theatre or Dance minor. Activity courses offered by the Department of Theatre and Commu-

nication Arts at the 1000 level with the prefix DANC may be taken to fulfill physical education requirements.

BACHELOR OF FINE ARTS (IN ART)

The Bachelor of Fine Arts in Art is a professional degree, the requirements for which provide the student with a greater opportunity for specialization in art than the other baccalaureate programs; for this degree a total of 142 semester hours is required for graduation, 90 of which must be in professional course work. A minimum of 42 upper division semester hours is required for this degree. A minimum grade of C is required in all art courses; the student must maintain an overall quality point average of 2.0. The specific degree requirements are divided into five groups: (1) general education, (2) basic art courses, (3) courses in *one* of the five concentration areas, (4) elective courses in art and (5) elective courses other than art to bring the total to 142 semester hours.

1. General Education Courses

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

Humanities: six semester hours to be chosen from communications, English, foreign languages, history, music history, philosophy, or theatre history.

History: HIST 2601, 2602

Natural/Physical Science: 6 semester hours (A sequence is required *only* for those students with a concentration in Art Education and who are seeking state certification.) in biology, chemistry, GEOG 1101, 1102; GEOG 1101, GEOL 1101, GEOL 1101, 1201, PSCI 1031, 1032; or physics

Oral Communications: One oral communications course (3 semester hours) from the Department of Theatre and Communication Arts.

Mathematics: One-semester course (3 semester hours) MATH 1181, 1182, 1211, or 1212; or PHIL 1611.

Physical Education: for details see *Graduation from the University*.

2. Basic Art Courses (39 hours)

ART 1311, 1314, 2313; 1201, 1204, 2201, 2202; 2101, 2102.
Art History: 12 upper division semester hours in art history courses; no more than 3 hours of museum studies may be used to satisfy this requirement (Students in Interior Design are required to take ART 3103, 3104; in Art Education, students are required to take only ART 4167 and 4168.)

3. Concentration Areas:

a. **Ceramics, Painting, Printmaking, and Sculpture (42 hours):**

ART 2314, 4321, 3523, 3524, 4521, 4522; 2351, 3351, 4351, 2511, 3511, 4511; 3331, 3332, 4331, 4332, 4621, 4622; 4611.

NOTE: Selection of fourteen (14) appropriate courses from the nineteen (19) courses listed above.

b. **Graphic Design (42 hours):**

ART 2213, 2221, 2312, 2351, 3221, 3222, 4221, 4222; 3223, 3541, 4321, 4341, 4342, 4611.

c. **Interior Design (42 hours):**

ART, 2233, 2234, 2312, 3233, 3234, 3235, 3236, 3237, 3238, 4237, 4238, 4239, 4240, 4611.

d. **Art Education (51 hours):**

ART 2314, 3523, 4321, 4322, 4424, 3411, 3413, 3421, 4421; EDUC 2600, 3000, 3100, 3401, 3501, 4601, 4901. Art education students must also complete all general education courses outlined in the program description for Teacher Education in the College of Education section.

e. **Design (39 hours):**

ART 2312, TECH 1611, ART 2701, 3240, 4201, 4202, 4205, 4206, 4207, 4208, 4611, 4621, 4622

4. **Art Electives** to complete the total of 90 semester hours.

5. **Elective Courses** other than art to complete the total of 142 semester hours. These courses will be chosen by the student in consultation with his advisor and the chairman of the Department of Art.

BACHELOR OF FINE ARTS (IN COMMERCIAL MUSIC)

The Bachelor of Fine Arts in Commercial Music is designed for students whose interest and abilities indicate a strong potential for significant achievement in the business or recording areas of the music industry. Two concentrations are offered: I. Music Business and II. Recording/Engineering. The intent of the program is to train individuals for entry and middle level positions in these areas of the music industry.

Admission: Admission to the University does not guarantee a student placement in the B.F.A. program. Admission is based on selective procedures. Stringent quality control is essential; therefore, an assessment is required of all students desiring to enter the program. One or more members of the Music Industry Advisory Board will participate in the assessment of the student so that estimates of commitment and potential for success can be made. Admissions criteria may be obtained through the office of the Chairman, Department of Music.

Remaining in the Program: The student's progress and continued potential will be reviewed twice a year by the appropriate Commercial Music faculty. Permission to continue in the program will be based upon this evaluation. Retention criteria may be obtained through the office of the Chairman, Department of Music.

Experiential Learning: Credit may be awarded for validated learning experience or nontraditional instruction. Students who wish to apply for credit for experiential learning may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. (See *Fees and Charges* for related fee information.)

Graduation from the Program: Upon admission to the program, each student will be assigned a CMUS faculty adviser. For the B.F.A. in Commercial Music, 142 semester hours are required for graduation. A minimum grade of C and a quality point average of 3.0 are required in all Commercial Music core and concentration courses.

1. General Education Courses

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106 (12)
 Humanities: six semester hours to be chosen from communications, English, foreign languages, history, theatre history, philosophy, or art history (6)
 Communications: one of the following: COMM 1211, 1311, 2321, 2322, 2912, 3341, THEA 1411 (3)
 History: HIST 2601, 2602 (6)
 Natural/Physical Sciences: (sequence not required) (6)
 Mathematics: Music Business — MATH 1211; Recording/Engineering — MATH 1213 or higher (3)
 Physical Education: for details see *Graduation from the University*. (4)

2. Commercial Music Core (46-47 hours):

ACCT 2010; MUTC 1001, 1002; MUHL 3302 or 4801 or 4802; CMUS 3800, 4602, 4603, 3100, 3101, 3823, 4898 or 4899; two of the following: CMUS 3824, 4831; JOUR 2300, 3400; CJUS 3152, 4233

3. Concentration Areas

a. Music Business (39 hours):
 ACCT 2020; CMUS 2213, 2221, 3223; COMM 4811; ECON

2110, 2120; FIR 3130, 3410; MGMT 2750, 2710, 3110; MKTG 3010.

b. Recording/Engineering (36 hours):
 CMUS 1811, 3801, 4800, 4802, 4803, 4804, 4805; COMM 3821; three of the following: ACCT 2020; ECON 2110; FIR 3130, 3410; MGMT 2750, 2710, 3110; MKTG 3010; COMM 4011.

4. Elective Courses

Elective courses to bring the total to a minimum of 142 hours. These courses will be chosen by the student in consultation with the advisor and major professor.

BACHELOR OF FINE ARTS (IN THEATRE)

The Bachelor of Fine Arts degree is a program specifically designed for students whose *certain* interests and abilities *strongly* suggest the potential for pursuing careers as professional artists in the resident, professional, or academic theatre. To expand the student's creative powers and deepen the commitment to a vocation in the theatre, the B.F.A. program offers the student (1) a basic probing of all the arts and crafts of the theatre; (2) an exploration in depth of one area of special interest; (3) the opportunity to participate creatively as a theatre artist through extensive production experience. Three areas of specialization are offered: I. Performance, II. Design and Technical Production, and III. Dance. Students entering the B.F.A. program will elect one of these three areas for concentrated study. The student will normally begin specialized training at the end of the sophomore year.

Admission: Admission to the B.F.A. program in Theatre is based on selective procedures. Entrance into the Performance area is based on auditions and interview. The audition/interviews are held twice yearly, near the end of each semester. The audition will consist of two scenes of approximately two minutes duration each for a total of no more than five minutes. The scenes should be from plays of distinctly different styles and/or periods.

Following a group of scenes, a critique session will be held. Applicants will be notified within a few days that they have been accepted into the program, accepted for one more semester on a probation basis, or advised to pursue another degree program.

An interview is also required for admission to the Design and Technical Production area. The student will submit a portfolio of graphic work. This may consist of sketches, costume plates, elevations, light plots, ground plans, etc.

Remaining in the B.F.A. Program: The fact must be emphasized that admission to the B.F.A. curriculum does *not* imply a student's permanent tenure in the program. At the end of each semester the student is expected to audition and the student's work will be assessed by the theatre faculty. Artistic growth, development of technical facility, and continuing commitment to creative excellence on the part of the student will all be evaluated. Permission to continue in the program will be based upon this evaluation.

Transfer of Credit: In certain cases students may be admitted to an advanced level of the B.F.A. training program. Such admission will be based upon: (1) an audition and interview; (2) the student's previous course work in theatre, particularly in the area of his special interest; (3) the student's previous involvements in production experience; (4) letters of recommendation from former Theatre Arts instructors and/or directors. Even if admitted to an advanced standing, the student will be required to remedy previous course deficiencies.

Advising: Upon admission to the B.F.A. program, each student will be assigned a faculty advisor. For this degree, 136 semester hours are required for graduation. A minimum grade of C is required in all theatre courses; the student must maintain an overall quality point average of 2.0.

1. General Education Courses

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106 (12)
 Humanities: Six semester hours to be chosen from communications, English, foreign languages, history, music history, philosophy, or art history. (6)
 History: HIST 2601, 2602 (6)
 Natural/Physical Sciences: (Sequence not required) (6)
 Oral Communications: One oral communication course from the Department of Theatre and Communication Arts (3)
 Mathematics or PHIL 1611 (3)
 Physical Education (THEA 2501 or 2502 may be substituted for one P.E. course) (4)
 37SH

2. Basic Theatre Core Courses (3 hours):

THEA 1411, 1551, 1561, 2501, 2511 or 2512, 2531, 3412, 3541 (2), 3542 (4), 4551, or 4552, 4582, and COMM 1781.

3. Concentration Areas

Performance, Design and Technical Production, and Dance Individual concentration course sequence to be determined in conference with student's advisor and then submitted as a Plan of Study to the Director of Theatre for approval. Emphasis in specific areas (acting, stage movement, dance, directing, lyric theatre, oral interpretation, playwrighting, design, theatre technology, management) will determine sequence structure. FOR EXAMPLE:

- a. Performance (Acting Sequence):**
 THEA 1212, 2502, 2532, 3411, 3451, 3505, 3506, 3521, 3531, 3532, 3541, 3542, 4451, *4541, 4551 or 4552 (to complement theatre history core course requirement), elective courses chosen in conference with the student's advisor to complete the total of 16 semester hours.
- b. Design and Technical Production**
 THEA 2511 or 2512 (whichever one was not taken as part of Theatre core requirement), 3511, 3512, 3513, 3542, 3561, *4541, 4551 or 4552, (to complement theatre history core requirements), 4562, 4564, 4565, 4567, 4569, 4591, 4592; 16 hours of elective courses chosen in conference with the student's advisor.
- c. Dance**
 THEA 2532, 3541, 3542, 4541; DANC 1821, 1822, 1823, 1825, 1826, 1827, 1831, 1832; PHED 3403; courses and directed individual studies to be selected from THEA 4553; DANC 2101, 2201, 3101, 3201, 4101, 4201 or 4301, in conference with advisor.

*NOTE: THEA 4541 Internship (see course description section.) The intent of this requirement and course is to provide the student experience in a full-time theatre production situation. Off-campus participation (usually following the junior year) is an essential element of the B.F.A. degree program. Details are to be planned in advance in conference with the student's advisor.

BACHELOR OF MUSIC (IN COMMERCIAL MUSIC)

The Bachelor of Music with a major in Commercial Music is designed for students whose interests and abilities give strong evidence of potential for significant achievement in the areas of musical performance or composition/arranging in commercial music. The concentrations

available are: I. Studio/Live Performance and II. Composition/Arranging.

Admission: An interview and an audition are required of all students entering this program in order to gain an appreciation of the inherent musical potential, qualifications, expectations, and prior experience of the student so that preliminary estimates of student commitment and potential success can be made. Stringent quality control is essential. Upon admission, the student will be assigned a faculty advisor.

Experiential Learning: Credit may be awarded for validated learning from experience or non-traditional instruction. Students who wish to apply for credit for experiential learning may obtain guidelines for this procedure from the Dean of the College of Communication and Fine Arts. (See *Fees and Charges*, for related fee information.)

Remaining in the Program: The student's progress and continued potential will be reviewed at the conclusion of each semester by the faculty in Jazz and Commercial Music. Academic excellence and personal commitment to a career in the music industry as evidenced by involvement in projects of the student's own invention apart from classroom assignments will also be assessed.

Graduation from the Program: For the B.M. with a major in Commercial Music, the minimum of 142 semester hours is required for graduation. A minimum grade of C and an average QPA of 3.0 are required for courses in the major, with an overall QPA of not less than a 2.0.

1. General Education Courses (37-39 hours)

- English:** ENGL 1101, 1102 with a minimum grade of C; and two of the following: ENGL 2101, 2102, 2103, 2104, 2105, 2106 (12)
- History:** HIST 2601, 2602 (6)
- Science:** a two-semester sequence course (6 semester hours or more) in biology; chemistry; GEOG 1101, 1102; geology; or physics (6-8)
- Humanities and Communications:** one of the following: COMM 2321, 2322, or THEA 1411, plus one course to be chosen from communications, English, foreign languages, history, art history, philosophy, or theatre history. (6)
- Mathematics:** MATH 1213 or higher (3)
- Physical Education:** for details see *Graduation from the University*. (4)

2. Commercial Music Core Courses (12-14 hours)

CMUS 4602, 4897*, one of the following: CMUS 3100, 3101, 3823, CMUS 3800

*Composition Project required for Composition/Arranging and Performance Project required for Studio/Live Performance concentration.

3. Musicianship Core Courses (38 hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3009, MUHL 3302, 4802 (History of Jazz); MUAP 1000; MUSE 1105; CMUS 1116, 2101, 2102, 3828.

4. Concentration Areas

- a. Studio/Live Performance (52 hours)**
Individual lessons on a major instrument or voice of which a minimum of 4 hours must be in upper division courses (16)
- Instruction on a secondary instrument or voice (piano majors take MUTC 2511) (2)
- MUAP 3010 (University Jazz Ensemble) (8)
- MUAP 3011 (4)
- MUAP 3103 (6)
- MUAP 3825 (3)
- MUAP 3826 (3)
- MUAP 3827 (3)
- MUAP 4103 (3)
- These courses have separate sections for voice and instrumental students.
- 4201 (Studies in Commercial Music) (2)
- Electives (2)

- b. Composition/Arranging (51-52 hours)**
Major instrument or voice (7)
- MUSE 1101, 1104, 1109, MUAP 1311 (pianists MUSE 1111), (percussionists MUSE 1111); MUTC 2501, 2502, 2511, 3106; two semesters each of MUAP 3010, 3011, 3103 (vocalists may take MUAP 3601); CMUS 2501, 2502, 3501, 4102, 4501, 4502 (36)
- Two of the following: CMUS 3801, 3825, 4103, 4603; MUTC 3108 (5-6)
- Electives (2-3)

BACHELOR OF MUSIC (IN MUSIC)

The Bachelor of Music with a major in Music is a professional degree, the requirements for which provide the student with an opportunity for specialization in the traditional disciplines of music and music education. A minimum grade of C is required in every graded course applicable toward the major. The student must maintain an overall quality point average of 2.0. The specific degree requirements are divided into five groups: (1) general education, (2) basic music courses, (3) courses required for the specific concentration chosen by the student, (4) music electives and (5) elective courses other than music and music education to bring the total of semester hours taken to 132. Transfer students must complete at least 30 semester hours of music and/or music education courses at the upper division level at Memphis State University.

Admission: All applicants seeking admission as freshman music majors or as transfer students must complete and submit to the Admissions Office of Memphis State University an appropriate formal application form. In addition to academic considerations, admission to the music degree program requires a personal interview and an audition. The audition consists of (1) performance in the student's major applied area, (2) a music theory examination and (3) a piano placement exam. Candidates are accepted on the basis of accomplishment, potential and suitability for the program they wish to pursue. Students seeking admittance as music majors in the fall term should apply no later than *June 15* and those seeking admittance in the spring term should apply no later than *December 1*. Additional information on specific audition requirements and on interview/audition appointments may be obtained through the office of the Department of Music.

Degree Requirements (figures in parentheses indicate semester hours credit):

1. General Education Courses (39-42 hours)

- English:** ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106 (12).
- Foreign Language:** 6 semester hours in one foreign language; for details see advisor. (Not required in School Music concentration.) (6)
- History:** two of the following: HIST 2601, 2602, 3900. (6)
- Science:** A two-semester sequence course (6 semester hours or more) in biology; chemistry; GEOG 1101, 1102; geology; or physics. (6-8)
- Communications:** one of the following: COMM 1211, 1311, 2321, 2322, 2912, 3341, THEA 1411. (Only COMM 2912 is applicable to the concentration in School Music.) (3)
- Mathematics:** 3 semester hours from the following: 1181, 1182, 1211, 1212, 1312, 1321, 2291, 2321, or 2611; or PHIL 1611. (PHIL 1611 not applicable to the concentration in School Music.) (3)
- Physical Education:** for details see *Graduation from the University*. (4)

2. Basic Music Courses (36 hours)

- MUTC 1008, 1010, 1009, 1011, 2008, 2010, 3008, 3009, 3010, 3101, 3102 (MUTC 3102 not required in School Music concentration) (22)
- MUHL 3301, 3302, History of Music (6)

Large Musical Organizations: A minimum of eight semesters of large ensemble is required of music majors. (Exceptions to this policy are pianists with concentration in Performance and guitarists who are required to have a minimum of 6 semesters of large ensemble; and music education students who are required to have 7 semesters of large ensemble.) Generally, wind and percussion performers are to participate in an instrumental ensemble; string performers are to participate in orchestra; and vocal, keyboard, and guitar performers are to participate in a choral organization unless assigned to a large instrumental ensemble. Transfer students lacking sufficient large ensemble credits may partially fulfill their large ensemble requirements by simultaneously enrolling in a small ensemble with a maximum of 2 credit hours of small ensemble applicable to the total large ensemble requirement. Ensemble assignments are based on audition and may be repeated. Any exception to this general ensemble assignment policy will be made after a review of petitions by the departmental chairman, the appropriate ensemble director, and the applied teacher.

Piano Proficiency: All undergraduate music students must complete a piano placement examination prior to enrolling in applied music courses in the Department of Music. All music majors must pass the piano proficiency examination before the beginning of the senior year. This may be done in either of two ways: (1) as part of the class work in MUSE 2108 Class Piano, or (2) by passing without credit the piano proficiency exam based on the student's area of major study, given once each semester. An official notice will be mailed to the student and appropriate officials upon completion of MUSE 2108 or the piano proficiency exam. Copies of the requirements for the piano proficiency examination are available on request in the Music Department office. After successful completion of the piano proficiency examination, music students whose major instrument is not piano may be accepted for major group instruction or private instruction in piano (students in Theory or in Composition may be assigned to group lessons or to private piano studios before passing the proficiency examination with permission of their division heads and the permission of the Piano Division coordinator). Transfer students must take the proficiency examination during the first semester of residence or enroll in Class Piano at the appropriate level.

Applied Music Workshop: MUAP 1000 is required of all music majors for eight semesters and of all music education (school music) students for seven semesters.

3. Major: Music

Concentration Areas (choose one):

- a. Brass Instruments (46 hours):**
Individual instruction in major instrument (32)
- Individual instruction in two secondary brass instruments (4)
- MUSE 1104, Class Instruction in Woodwind Instruments (2)
- MUSE 3700, Basic Conducting (2)
- Junior and Senior Recitals (2)
- Small Ensembles, 4 semester hours required to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses (4)
- b. Church Music**
Choral Emphasis (40-41 hours):
Individual instruction in voice (16)
- MUSE 3700, Basic Conducting (2)
- MUAP 4701, Choral Conducting (2)
- MUAP 4619 or MUSE 4201 and 4799, Senior Recital or Choral Conducting and Special Problems in the Teaching of Music (1-2)
- MUSE 1111, Guitar Class (1)
- MUSA 4104, 4105, Sacred Music in History and Practice I and II (6)
- MUSE 4202, Materials and Methods K-6 (3)
- MUSE 4207, Choral Methods and Materials (2)
- Small Ensembles (4)
- Music Electives (2)

- Organ Emphasis (49 hours):**
Individual instruction in organ (16)
- Individual instruction in voice (4)
- MUSE 3700, Basic Conducting (2)
- MUAP 4339, Senior Recital (1)
- MUSE 4701, Choral Conducting (2)
- MUSA 4104, 4105, Sacred Music in History and Practice I and II (6)
- MUSE 4202, Materials and Methods K-6 (3)
- MUSE 4207, Choral Methods and Materials (2)
- MUSA 4101, Service Playing (3)
- MUTC 4201002 or 4201003, Counterpoint (2)
- MUHL 4005, 4006, History and Literature of the Organ I and II (4)
- Music Electives (2)
- Small Ensembles (2)

- c. Composition (47 hours):**
Individual instruction in applied music to include four semester hours of piano (12)
- MUTC 2501, Composition (2)
- MUTC 2502, Composition (4)
- MUTC 4101 Compositional Techniques of the Twentieth Century (3)
- MUTC 4501, Composition (8)
- (at least four semesters)
- MUTC 4511, Intermediate Electronic Music (2)
- MUTC 4512, Advanced Electronic Music (2)
- MUTC 4201002, 4201003, 4201004, Counterpoint (6)
- MUTC 4201007, Advanced Orchestration (3)
- MUSE 3700, Basic Conducting (2)
- MUSE 3702, Score Reading (3)

or		
MUHL 4406, Music of the Twentieth Century	(3)	
MUTC 4599, Senior Composition Recital	(1)	
MUAP 3402, Contemporary Chamber Players	(2)	
d. Music History (46 hours):		
Individual instruction in applied music	(8)	
MUTC 4201002, 4201003, Counterpoint	(4)	
Advanced Music History	(12)	
Two additional courses in the social sciences	(6)	
Foreign Language: 12 semester hours in addition to requirements for general education	(12)	
Collegium Musicum	(4)	
e. Music Theory (49 hours):		
Individual instruction in applied music.	(12)	
(At least 8 of these hours must be in piano.)		
MUTC 4502, Composition for Non-composition majors	(3)	
MUTC 4201002, 4201003, 4201004, Counterpoint	(6)	
MUTC 4201007, Advanced Orchestration	(3)	
MUSE 3700, Basic Conducting	(2)	
MUSE 3702, Score Reading	(3)	
MUTC 4203, Critical Studies in Music	(3)	
MUTC 4101, Compositional Techniques of the Twentieth Century	(3)	
MUTC 4201006, Analytical Techniques	(3)	
MUSE 4701, Choral Conducting	(2)	
MUTC 4104, Pedagogy of Theory	(2)	
Upper Division Music History	(6)	
f. Organ (49 hours):		
Individual instruction in organ	(32)	
MUAP 4338, 4399 Junior and Senior Recitals	(2)	
MUSE 3700, Basic Conducting	(2)	
MUSE 4701, Choral Conducting	(2)	
MUTC 4201003, 18th Century Counterpoint	(2)	
MUSA 4101, Service Playing	(3)	
MUHL 4005, 4006, History and Literature of the Organ I and II	(4)	
Small Ensembles	(2)	
Music Electives	(2)	
g. Percussion (46 hours):		
Individual instruction in percussion	(32)	
MUSE 1101, Class Instruction in Brass Instruments	(2)	
MUSE 1109, 1110, Class Instruction in String Instruments	(2)	
MUSE 1104, Class Instruction in Woodwind Instruments	(2)	
MUSE 3700, Basic Conducting	(2)	
MUAP 4418, 4419 Junior and Senior Recitals	(2)	
Small Ensembles, 4 semesters required, 2 semesters of MUAP 3401 Percussion Ensemble, and the other 2 to be chosen from those listed under "Small Ensembles and Chamber Music" in the course description section	(4)	
h. Piano and/or Harpsichord		
Chamber Music Emphasis (55-56 hours):		
Individual instruction in piano	(32)	
MUSE 4501 Basic Piano Pedagogy	(3)	
MUSE 4503 Advanced Piano Pedagogy	(3)	
MUSE 4505 Principles of Accompanying	(3)	
MUHL 4001 Piano Repertory	(3)	
MUAP 3301 Chamber Music for Pianists	(6)	
MUAP 4002 or 4003	(3)	
or		
MUHL 4004	(2)	
(Song Repertory I or II OR Survey of Chamber Music for Piano)		
MUAP 4318 Junior Recital	(1)	
MUAP 4348 Junior Accompanying Recital	(1)	
MUAP 4349 Senior Accompanying Recital	(1)	
Pedagogy Emphasis (54 hours):		
Individual instruction in piano	(32)	
MUSE 4501, Basic Piano Pedagogy	(3)	
MUSE 4503 Advanced Piano Pedagogy	(3)	
MUSE 4505 Principles of Accompanying	(3)	
MUHL 4001 Piano Repertory	(3)	
MUAP 3301 Chamber Music for Pianists	(6)	
MUAP 4318 Junior Recital	(1)	
EDPS 2111 Human Growth and Development	(3)	
Performance Emphasis (53 hours):		
Individual instruction in piano and/or harpsichord	(36)	
MUSE 4503 Advanced Piano Pedagogy	(3)	
MUSE 4505 Principles of Accompanying	(3)	
MUHL 4001 Piano Repertory	(3)	
MUAP 3301 Chamber Music for Pianists	(6)	
MUAP 4318, 4319 Junior and Senior Recitals	(2)	
i. Strings (47 hours):		
Individual lessons in major instrument	(32)	
Individual instruction in two secondary string instruments	(4)	
MUSE 3700, Basic Conducting	(2)	
Junior and Senior Recital	(2)	
Small Ensembles, 4 semesters required to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses	(4)	
Music Elective	(3)	
j. Voice/Opera		
Voice Emphasis (55 hours):		
Individual instruction in voice	(24)	
MUAP 4002, 4003 Song Repertory I & II	(6)	
MUHL 4407 The Opera and Music Drama	(3)	
MUSE 4701 Choral Conducting	(2)	
Foreign Language	(12)	
In addition to 6 hours general education requirement, 6 hours each in 2 other languages (must be in French, German, or Italian)		
Junior Recital (MUAP 4618)	(1)	
Senior Recital (MUAP 4619)	(1)	
NOTE: The junior recital may be satisfied by public performance in a major operatic role.		
Small Ensembles		
MUAP 3602 Opera Workshop	(2)	
MUAP 3604 Opera Production	(2)	
Additional small ensembles of the student's choice	(2)	
Opera Emphasis (56 hours):		
Individual instruction in voice	(16)	
MUAP 4002, 4003 Song Repertory	(6)	
MUHL 4407 Opera and Music Drama	(3)	
Theatre (6 hours from the following):		
THEA 1551, 2501, 2515, 2531, 3511		
Foreign Language	(12)	
In addition to 6 hours general education requirements, 6 hours each in 2 other languages (must be in French, German, or Italian)		
Junior Recital (MUAP 4618)	(1)	
Senior Recital (MUAP 4619)	(1)	
NOTE: The junior recital may be satisfied by public performance in a major operatic role.		
Small Ensembles		
MUAP 3602 Opera Workshop	(4)	
MUAP 3603 Opera Soloists	(4)	
MUAP 3604 Opera Production	(3)	
k. Woodwinds (51 hours):		
Individual instruction in major instrument	(32)	
Individual instruction in three secondary instruments	(6)	
MUSE 1101, Class instruction in Brass Instruments	(2)	
MUTC 4201007, Advanced Orchestration	(3)	
MUSE 3700, Basic Conducting	(2)	
Junior and Senior Recitals	(2)	
Small Ensembles, 4 semesters required, to be chosen from those listed under "Small Ensembles and Chamber Music" in the description of music courses	(4)	
l. Instrumental School Music (79 hours):		
Speech: COMM 2912	(3)	
Natural Science Elective	(3)	
Social Science elective from one of the following: anthropology, economics, geography, political science, and sociology	(3)	
Health and Personal Development: HLTH 1102 and one of the following: HMEC 1101 or PSYC 1101	(6)	
EDUC 2500 Diverse Learning Environments	(1)	
EDUC 2600 Human Development and Learning Theory	(3)	
EDUC 3000 Instructional Delivery and Management	(4)	
EDUC 3200 Interpersonal Skills for Educators	(2)	
MUSE 4206 Music for Exceptional Children	(3)	
EDUC 3600 Applications of Instructional Media	(3)	
EDUC 4601 Educational Foundations for Teachers	(2)	
EDUC 4800 Advanced Professional Seminar	(1)	
EDUC 4901 Internship for Teachers	(9)	
SCED 4342 Teaching Reading: Secondary Content Areas	(2)	
MUSE 4203 Materials and Methods of Classroom Music	(3)	
MUSE 1101, 1103, 1104 Class Instruction in Brass Instruments, Class Instruction in Percussion Methods, Class Instruction in Woodwind Instruments	(6)	
MUSE 1109, 1110 Class Instruction in Stringed Instruments	(2)	
MUSE 1112, 1113 Class Instruction in Voice	(2)	
MUSE 3700, 4700 Basic Conducting, Instrumental Conducting	(4)	
MUSE 4204 Instrumental Music in Elementary and Secondary Education	(2)	
Applied Music: individual instruction on a major instrument, at least 4 hours must be taken at the upper division level	(14)	
Junior Recital	(1)	
m. Vocal School Music (76 hours):		
Speech: COMM 2912	(3)	
Natural Science Elective	(3)	
Social Science elective from one of the following: anthropology, economics, geography, political science, and sociology	(3)	
Health and Personal Development: HLTH 1102 and one of the following: HMEC 1101 or PSYC 1101	(6)	
EDUC 2500 Diverse Learning Environments	(1)	
EDUC 2600 Human Development and Learning Theory	(3)	
EDUC 3000 Instructional Delivery and Management	(4)	
EDUC 3200 Interpersonal Skills for Educators	(2)	
EDUC 4206 Music for Exceptional Children	(3)	
EDUC 3600 Applications of Instructional Media	(3)	
EDUC 4601 Educational Foundations for Teachers	(2)	
EDUC 4800 Advanced Professional Seminar	(1)	
EDUC 4901 Internship for Teachers	(9)	
SCED 4342 Teaching Reading: Secondary Content Areas	(2)	
MUSE 4203 Materials and Methods of Classroom Music	(3)	
MUSE 1112, 1113 Class Instruction in Voice	(2)*	
MUSE 3700, 4701 Basic Conducting, Choral Conducting	(4)	
MUSE 1115 Classroom Instruments: Guitar and Recorder	(2)	
MUSE 4202 Materials and Methods of Music, Grades K-6	(3)	
MUSE 4207 Choral Methods and Materials	(2)	
Applied Music: individual instruction in a major instrument or voice; at least 4 hours must be taken at the upper division level	(14)	
Junior Recital	(1)	

*Not required of students enrolled in applied voice

4. Music Electives: at least 6 semester hours in upper division music courses

selected from a concentration area other than the one chosen for the major.

5. Elective Courses to bring the total to a minimum of 132 semester hours. These courses will be chosen by the student in consultation with his advisor and major professor.

BACHELOR OF ARTS

To qualify for the degree of Bachelor of Arts the student must complete a minimum of 132 semester hours with a quality point average of 2.0. Of the 132 semester hours required for graduation, at least 42 semester hours must be in courses from the Upper Division. Not more than 42 semester hours in any one subject will be counted toward a degree. (EXCEPTION: The student majoring in journalism may not count more than 35 hours in journalism and journalism skills courses toward the 132 hours required for graduation.)

B.A. DEGREE REQUIREMENTS

English: ENGL 1101, 1102 with a minimum grade of C; and two of the following: 2101, 2102, 2103, 2104, 2105, 2106

Foreign language: 12 semester hours, or the equivalent, in one foreign language.

History: HIST 2601, 2602.

Natural science: 3 courses from at least 2 departments, if 2 are from the same department, they must constitute a sequence. Courses from which these must be selected are BIOL 1200, 1600, CHEM 1051, 1052, or CHEM 1111, 1112, or PSYC 1031, 1032, GEOG 1101, 1102, GEOG 1101, GEOL 1101, GEOL 1101, 1201 (not more than two courses may be taken in geography and/or geology courses to meet this requirement); PHYS 1111, 1112 or 1811, 1812, or 2111, 2112, or 2511, 2512.

Social science: 15 semester hours with no more than 6 semester hours in a single discipline. Courses from which these must be selected are ANTH 1100 or 1300, and ANTH 1200 or 1400, CJUS 1100, ECON 1010, 2110, 2120, GEOG 1401, 2301, 2311, HIST 1301, 1302, INTL 1101, 1102, POLS 1101, 1100, 2301, 2501, PSYC 1101, 1102, SOCI 1111, 1112, no more than 6 hours from the following courses: JOUR 1700, COMM 1781, 1782.

Mathematics/Philosophy: 9 semester hours as follows: 3 of mathematics plus 3 of philosophy plus 3 of either. The following courses are acceptable: MATH 1181, 1182, or 1211, 1212, 1312, 1321, 1401, 1402, 2291, 2321, 2322, 2401, 2402, 2581, PHIL 1111, 1611.

Fine Arts: Two of the following courses: ART 1101, MUHL 1101; THEA 1551; and COMM 1851.

Physical Education: for details see *Graduation from the University*.

Major: Completion of requirements for one of the majors listed below

Electives: to bring the total to 132 semester hours

MAJORS (Choose one)

ART HISTORY

The Major: 36 semester hours in art history courses, including ART 2101, 2102, 4611, and one upper division course each from five of the following art history categories: Ancient, Medieval, Renaissance, Baroque, Modern European, American, and non-European art. A minimum of 3 hours in studio art is also required.

ART

The Major: None available.

The Minor: 24 semester hours in art courses, 9 of which must be from the upper division.

PHOTOGRAPHY

The Major: None available.

The Minor: 18 semester hours as follows: ART 2701, 2702, 3701, 4701, 4702, and 4721.

JOURNALISM

Note: All journalism students must have typing proficiency before admission to JOUR 2121.

Students majoring in journalism may select only one concentration and/or emphasis and may not simultaneously complete, within the 132 hours required for the Bachelor of Arts degree, the concentration in film and videotape production within the theatre and communication arts major. Twelve semester hours in a secondary area of emphasis, outside the Department of Journalism, approved by the student's advisor, is recommended.

In order to be in compliance with the American Council on Education for Journalism and Mass Communication accreditation standards, MSU will accept no more than 12 semester hours or the equivalent in Journalism courses for transfer from community colleges to be applied toward the degree.

The Major:

Journalism Core (required of all students majoring in journalism-12 hours): JOUR 1700, 2121, 4700, and one of the following: JOUR 3700, 4704, 4706, 4708, 4726, or 4800. (Public Relations majors may not elect JOUR 3700, 4706, or 4726).

Completion of **one** of the following concentrations:

ADVERTISING (18 hours): JOUR 2300, 2710, 3322, 3324, 3325, 4327.

BROADCAST NEWS (13-17 hours): JOUR 3625, 4629; COMM 3821; COMM 3801 OR COMM 3823 and 3824.

NEWS EDITORIAL (Choose one emphasis):

Magazine (18 hours): JOUR 2123, 2200, 3205, 3214, 3527, 3720.

Newspaper (13-14 hours): JOUR 2123, 3125, 3720, 4120, and 3123 or 4726 or, for students meeting the specified criteria, 4130.

Photojournalism (16 hours): JOUR 2123, 2520, 3525, 3527, 3720, 4830 (1 hour).

PUBLIC RELATIONS (42 hours): JOUR 3400, 3421, 3422, 3625, 4423, and two of the following: 3720, 3123, 3205; COMM 3322, 3801, ART 2221, MGMT 3110 and 4420, MKTG 3140 and EDRS 4541-001.

The Minor: Students may qualify for a minor in general journalism by completing 18 semester hours in journalism courses, including JOUR 1700, 2121, 3400, and 9 additional semester hours selected from the upper division.

Practical experience is available to all journalism students on *The Helmsman*, *The DeSoto*, University yearbook, or in one of the following activities: University Public Information Office, Athletic Publicity Office, Alumni Publicity Office, Photo Service Department. Qualified majors will be chosen for senior-year internships with Memphis newspapers, magazines, advertising-public relations agencies, and broadcasting stations.

APPLIED MUSIC

The Major: None.

The Minor: 24-28 hours in basic music courses plus the completion of the requirements for a minor; specific courses are outlined below.

Basic music courses (22 hours)

MUTC 1008, 1010, 1009, 1011, 2008, 2010 (12 hours)

MUHL 3301, 3302

Individual instruction in piano, organ, voice, or orchestral instrument, 4 semester hours. Applied Music Workshop (See *Description of Courses*, for details.) *Applied Music* (4 hours) 4 semester hours of individual instruction in upper-division courses.

THEATRE AND COMMUNICATION ARTS**The Major:**

All students must take THEA 1551 and COMM 1781 and fulfill the requirements for one of the following concentrations:

Select one of the following concentration areas:

BROADCASTING: 30-31 semester hours, including COMM 2321; 3800, 3821 or 3823, 4810, 4857; and 15 additional hours in Communications including two of the following: 4811, 4831, 4854, or 4871.

COMMUNICATION: 30 semester hours, including COMM 1780; 2321; 3322; two of: 3800, 3851, 4853, 4854; two of: 4341, 4011, 4013, 4360, 4101; and 9 additional hours in Communication.

FILM AND VIDEO TAPE PRODUCTION: 32 semester hours, including COMM 2321 or 3322; 3823; 3824; two of: 4824, 4825, 4842; 3 hours in 4892 or 4802; and 12 additional hours in Communication including two of the following: 4851, 4852, 4853, 4854, or 4855.

GENERAL SPEECH AND THEATRE: 30 semester hours including THEA 1411; COMM 1851; 2321; three of: THEA 4581, 4551, 4552, COMM 4362, 4851, 4852, 4857; and 12 additional hours in Communication and Theatre.

THEATRE: 30 semester hours including: THEA 1411, 1561, 2501, 2511 or 2512, 2531, 3412, 3541 (2 hours), 3542 (4 hours), 4551 or 4552, and three additional hours in Theatre. NOTE: No more than six additional elective hours may be selected from Theatre or Communication areas.

The Minor: Any student wishing to minor in any area (Communication Arts, Theatre, Dance, Theatre and Communication Arts) in the Department of Theatre and Communication Arts should see the department chairman who will assign an appropriate advisor. The minor must consist of at least 18 hours of approved coursework, 6 of which must be upper division for the Dance minor and 9 of which must be upper division for the minor in Communication Arts, Theatre, or Theatre and Communication Arts. Coursework for all minors will be determined by the student in conference with the advisor with the approval of the department chairman.

HONORS PROGRAM

The Honors Program offers superior students the opportunity to engage in an intensive and individualized course of study leading to a Bachelor of Arts degree with Departmental Honors. The program enables honors students to develop their particular talents, interests, and abilities within a curriculum designed to encourage academic independence and creativity.

Admission: To be eligible for admission into the Honors Program, a student must meet the following requirements: (a) the completion of 55 semester hours of college course work (or Junior standing), (b) an overall quality point average of 3.25 or better, (c) a departmental quality point average of 3.25 or better, and (d) the completion of the 6 hours of core requirements in the department (COMM 1781 and THEA 1551). Students who have not met all of these requirements may apply for admission into the program, and their applications will be considered on a "professional admittance" basis. Applications may be obtained from any member of the Honors Committee or from the main office of the department. Completed applications should be submitted to the Director of Honors at least two weeks before the end of each semester. Students may be admitted to the program at the end of any semester (including summer semesters).

Requirements: To graduate with departmental honors, an honors student must fulfill the following requirements:

(a) The completion of at least 18 hours of honors work. Twelve of these hours must be in upper division departmental honors work, and a maximum of 6 hours may be in lower division or extra-departmental honors work.

(b) The completion of an honors project or thesis in the senior year.

(c) The maintenance of an overall grade point average of 3.0 and a departmental grade point average of 3.25.

An honors student may earn 12 hours of departmental undergraduate honors credit by taking 7000-level courses under the COMM 4980 designation, "Honors Studies" (for a maximum of 9 hours undergraduate credit), and by taking a maximum of 6 hours in "Senior Honors Thesis" (COMM 4981). This will allow honors students to enroll in those departmental seminars which most specifically reflect their particular interests in theatre and communications. An honors student majoring in any field of concentration in the department will be able to substitute honors credit for certain track requirements for graduation. Contracting for honors credit in other courses or enrolling in Independent Study or Special Problems courses will not fulfill Honors Program requirements.

After completing 6 hours of Honors Studies, honors students may begin work on their projects or theses. These projects will be under the direct supervision of the Director of Honors, although students may ask any member of the departmental faculty to sit on their committees (three faculty members will sit on each student's committee). Typically, an honors student earns 6 hours of credit for the project, 3 of which reflect a semester of research or preparation, while the final 3 hours reflect a semester of writing or assembling the project. The honors project does not have to be a thesis; the nature of the project will depend on the student's interests, talents, and course work and will be decided on an individual basis by the Director of Honors.

For further information about the Honors Program, contact the chairman, Department of Theatre and Communication Arts.

The College of Education

ROBERT L. SAUNDERS, B.S., M.S., Ed.D., *Dean*
Room 215, The College of Education Building

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
Curriculum and Instruction	Elementary Education		Bachelor of Science in Education (B.S.Ed.)
	Early Childhood Education		Bachelor of Science in Education (B.S.Ed.)
	Secondary Education		Bachelor of Science in Education (B.S.Ed.)
Health, Physical Education and Recreation	Health Education Physical Education Recreation and Park Administration		Bachelor of Science in Education (B.S.Ed.)
Home Economics and Distributive Education	Home Economics	Dietetics Food Administration Merchandising-Fashion Merchandising-Home Furnishings	Bachelor of Science in Home Economics (B.S.H.E.)
	Vocational Home Economics	Occupational Child Care Services Occupational Clothing Services Occupational Food Services	Bachelor of Science in Education (B.S.Ed.)
	Distributive Education		Bachelor of Science in Education (B.S.Ed.)
Special Education and Rehabilitation	Special Education		Bachelor of Science in Education (B.S.Ed.)
	Rehabilitation Education	Rehabilitation of the Public Offender Vocational Evaluation Rehabilitation Education	Bachelor of Science in Education (B.S.Ed.)
(Interdisciplinary)	Educational Services		Bachelor of Science in Education (B.S.Ed.)

PURPOSES

The College of Education is dedicated to preparing students for careers in a variety of professional and related occupational areas. In helping the University pursue its three broad objectives of teaching, public service and research, The College of Education is committed to the following purposes: (1) to provide programs for preparation of teachers and related school personnel; (2) to provide programs which prepare students for careers as educators in non-school settings; (3) to provide programs for students preparing for careers in related occupational and professional areas; (4) to provide programs and services which enable students to acquire additional preparation needed for continuous professional growth and for changing career objectives; (5) to provide effective personnel services in such areas as advising, certification, placement, and follow-up to undergraduates, graduates, and educators-in-service; (6) to provide a comprehensive program of research and service to schools and other appropriate agencies in the state, region, and nation; and (7) to provide appropriate programs and services needed by Memphis State University in its efforts to continuously improve the effectiveness of teaching and learning at the University.

AREAS OF PROFESSIONAL TRAINING

The College of Education offers a wide selection of general and specialized programs which are designed to prepare students for a variety of careers:

Careers in Teaching

Teachers are a vital element in society and the training of well-prepared teachers continues to be a primary goal of The College of Education. Careers in teaching offer a wide range of specialization choices and opportunities in nursery, kindergarten, elementary, junior high and senior high schools.

Through the College of Education there are options for thirty-four different major or minor endorsement areas. These endorsements are grouped into teaching areas for Grades K-8 (Elementary Education and Early Childhood); Grades K-12; Vocational Education: Grades 7-12; and Secondary Education: Grades 7-12.

Preparation for the various teaching areas includes a significant professional education component which emphasizes both a comprehensive knowledge base and an extensive skills requirement to ensure competency in pedagogy. To meet these objectives, there is provision for significant field and/or laboratory based experiences which culminate in an internship in the student's senior year. Combi-

nations of endorsement areas are possible and recommended.

Careers in Educational Services

Significant and far-reaching changes have created a society in which the view of education has become more comprehensive and learning has become an integral part of job effectiveness and everyday living. Demands for training in business and industry, health care agencies, government, social service agencies, correction institutions, community agencies, and religious organizations have brought increased emphasis to the need for preparation of educators to provide educational services in a variety of professional practice settings outside traditional school settings. The preparation of these educators is accomplished through the Bachelor of Science in Education with a major in Educational Services.

This unique major encompasses a professional education component which is directly relevant to the needs of educators in these diverse settings and includes significant field and laboratory based experiences. It also provides for an internship, a supportive collateral studies component, and an individual program planning committee through which the student's personal interests, professional needs and career goals are accommodated.

Careers in Related Occupational and Professional Areas

Career options are available in related occupational and professional areas of Dietetics, Food Administration, Fashion Merchandising, and Home Furnishings Merchandising through the Department of Home Economics and Distributive Education. The Department of Special Education and Rehabilitation offers training for careers in rehabilitation through three concentration areas: Rehabilitation of the Public Offender, Vocational Evaluation, and Rehabilitation Education. Students have the opportunity to prepare for careers in Therapeutic Recreation, Outdoor Recreation, and Recreation Program Administration through the Department of Health, Physical Education and Recreation.

College Honors Program

The College of Education Honors Program is intended to provide opportunities for students of junior standing who seek to demonstrate excellence in academic achievement. It offers a series of specially designed honors sections and courses from which 18 semester hours must be taken and a 3.25 quality point average maintained. Specific information about the College Honors Program may be obtained in the Office of the Dean.

ORGANIZATION OF THE COLLEGE

The College of Education is comprised of seven academic departments: Counseling and Personnel Services; Curriculum and Instruction; Educational Administration and Supervision; Foundations of Education; Health, Physical Education and Recreation; Home Economics and Distributive Education; and Special Education and Rehabilitation. Undergraduate degrees are offered by the Departments of Curriculum and Instruction; Health, Physical Education and Recreation; Home Economics and Distributive Education; and Special Education and Rehabilitation. All seven departments offer a variety of graduate degrees and program options. In addition, there are ten research and service units in the College: Academic Advising, Laboratory Facilities, Office of Professional Laboratory Experiences, The Bureau of Educational Research and Services, The Center for Higher Education, The Reading Center, The Center for Environmental and Energy Education, The Center for Fitness and Wellness, The Children's School-MSU-Duration Program, and the University Campus School.

Academic Advising

Student advising in The College of Education is an essential support service provided to assist students in the process of clarifying academic goals consistent with their interests, abilities, values and resources. Advising serves as a means to provide academic, career and professional information so that students can develop personal and career goals and become knowledgeable of support services and resources available within the University to assist them in attaining their goals.

All undergraduate students entering the College are advised initially by The College of Education General Advisor. When entering the College, the Advisor assists students in becoming familiar with programs offered in the College and guides them through the beginning phases of their programs. Students are then assigned to a faculty advisor or Program Coordinator in their specific major. These persons will assist students until graduation. This assistance, however, does not in any way relieve the student of the primary responsibility of studying the catalog and fulfilling all degree requirements.

EDUCATOR PROGRAMS

Professional Studies for Educators

The professional studies component of the curriculum is divided into three

levels of professional education courses. The first group of courses, Level I, which is taken by all persons who wish to become educators, reflects the belief that all educators need certain generic knowledge and skills regardless of the professional practice setting in which they will pursue a career. This initial core of courses provides the foundation upon which all professional educators build their knowledge and skills.

Majors in teacher preparation programs and in educational services complete a second level of professional studies courses which are based upon the Level I courses. Due to the number of diverse professional practice settings of teachers and educational service professionals, the Level II courses are unique to each of these two educator groups. Specialized professional studies which are directed to each teaching specialty area are included at Level III. Level III also contains a professional seminar and an internship along with the specialized requirements of the teaching endorsement or supportive collateral studies area.

The goal of The College of Education is to provide education professionals with all the requisite knowledge and skills necessary for successful careers. To accomplish this goal, all courses in professional studies in The College of Education will have a significant portion of time devoted to field and/or laboratory experiences.

On the following page is the program design for The College of Education programs which prepare educators for school and non-school professional practice settings.

Teacher Education Programs REQUIREMENTS

Accreditation

The College of Education holds membership in the American Association of Colleges for Teacher Education. Its undergraduate programs as well as all graduate degree programs through the doctor's degree, for the preparation of teachers and related school personnel, are fully accredited by the National Council for Accreditation of Teacher Education (NCATE).

Endorsements in Certification Areas

Endorsements (program areas of study) which lead to teacher certification are available in the following areas:

Art Education	Russian
Business Education	Spanish
Distributive Education	Health Education
Driver Education	Industrial Arts Education
Early Childhood Education (K-3)	Librarian
Elementary Education	Mathematics*
English*	Music Education
Foreign Language*	Instrumental Music
French	School Music
German	Physical Education
Latin	Psychology
	Science*

Biology
Chemistry
Earth & Space Science
General Science
Physics
Social Studies*
Broad Fields
Economics

Geography
Government
History
Sociology
Special Education
Speech and Drama
Vocational Home
Economics

*Students entering the University for the first time as freshmen in the Fall of 1984, and who wish to prepare for teaching careers in the fields of English, mathematics, foreign language, the sciences or the social sciences, will be required to complete a five year program. This program will result in the student first receiving a baccalaureate degree in the College of Arts and Sciences and then a Master of Arts in Teaching degree through the College of Education. Recommendation for certification is contingent upon completion of the fifth year, Master of Arts in Teaching degree program.

This program is currently being developed for approval and will appear in the 1985-86 University *Bulletin*. It will replace the current bulletin option for a Secondary Education major in these five major teaching fields. Students should consult with their major advisors in the College of Arts and Sciences for information about this program and to insure that all pre-professional requirements for the teaching endorsement, general education and professional studies are completed. For additional advising information relative to requirements for teacher certification, students should contact Ms. Nardine Aquadro, General Advisor in the College of Education.

Admission

Students who plan to pursue a program of studies which leads to teacher certification must submit a formal application for admission to The College of Education Teacher Education Program (TEP). Although students may enroll in the Professional Studies Core — Level I courses without being admitted to the Teacher Education Program, they are encouraged to apply for admission as soon as they enroll in Level I Core courses.

Prerequisites for formal admission to the Teacher Education Program are:

1. Admission application complete.
2. Grade of C or above in ENGL 1101, 1102, and COMM 2912.
3. Satisfactory scores on Basic Skills Tests [(California Achievement Test (CAT), American College Test (ACT), or Scholastic Aptitude Test (SAT)] according to the criteria established by the Tennessee State Board of Education and The College of Education, Memphis State University.
4. Speech and Hearing Tests completed.
5. Recommendations from instructors of EDUC 2500 and 2600 and any other Level I Core courses completed.
6. Minimum of 25 semester hours completed.
7. Overall QPA of no less than 2.25.
8. QPA of no less than 2.5 in required professional education courses.
9. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.

Students must have been admitted to the Teacher Education Program and have completed the Professional Studies Core - Level I courses before other advanced level professional education courses are taken. Prior to admission to TEP, students may continue to enroll in courses in the general education curriculum, in the endorsement areas, or in Level I Core courses.

For a detailed explanation of all requirements and for application forms for admission to the Teacher Education Program, students should consult with The College of Education General Advisor.

Retention

It is recognized that program retention is a continuing process. The requirements for retention are:

1. Overall QPA of no less than 2.25.
2. QPA of no less than 2.5 in required professional education courses.
3. Grade of C or above in each required professional education course.
4. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
5. Favorable evaluation of student's performance in required field and laboratory experiences. (Course grades alone may not be used to meet this requirement.)
6. Favorable endorsement of student's personal commitment, affinity and aptitude for a career in teaching to be submitted by the faculty advisor.

If all requirements for retention have not been met, a faculty committee will review the student's academic record and other pertinent information and set up an interview with the student. This review may result in a recommendation to the Dean of the College for (1) continuation for a specific provisional period with specified conditions for continuation in the program or (2) dismissal from the program.

Pre-Student Teaching Clinical Experiences

Students pursuing teacher certification will complete as a part of their program of studies a variety of clinical experiences, which typically will be completed as a requirement built into professional education courses. Students will be expected to have experiences in a variety of settings and with students who reflect differences in age, socio-economic backgrounds and cultural heritage. In some instances, it may be necessary for a student to complete an experience as a free-standing non-credit activity.

Clinical experiences include both laboratory experiences (typically fulfilled on campus) and field experiences (typically fulfilled in K-12 school settings). The amount of time to be spent in a clinical experience will vary according to the specific requirement being met. Fulfillment of these experiences generally require that students make available out-of-class time between 7:00 a.m. and 4:00 p.m.

Completion of field experiences will occur in sites arranged and approved by the MSU-COE Office of Professional Laboratory Experiences.

Internship/Student Teaching

Students who are pursuing degree programs at Memphis State University that lead to teacher certification must complete their student teaching requirements in placements arranged, coordinated and approved by the Director of Professional Laboratory Experiences of

B.S.Ed. PROGRAM DESIGN**CERTIFICATED PROGRAMS (K-12)**

45 semester hours

4

EDUCATIONAL SERVICES PROGRAM

semester hours 42-44

4

**GENERAL EDUCATION
PHYSICAL EDUCATION
(Pre-Professional studies)**

12

PROFESSIONAL STUDIES CORE — LEVEL I

12

EDUC 2500	Diverse Learning Environments	1
EDUC 2600	Human Development and Learning Theory	3
EDUC 3000	Instructional Delivery and Management	4
EDUC 3100	Assessment and Evaluation	2
EDUC 3200	Interpersonal Skills for Educators	2

12

PROFESSIONAL STUDIES CORE — LEVEL II

15

EDUC 3301	Child Development and Learning Theory	
OR		
EDUC 3302	Adolescent Development and Learning Theory	2
EDUC 3401	Teaching the Exceptional Learner	2
EDUC 3501	Classroom Management	2
EDUC 3600	Applications of Instructional Media	3
EDUC 3701	Professional Seminar	1
EDUC 4601	Educational Foundations for Teachers	2

EDUC 3350	The Adult Learner	2
EDUC 3600	Applications of Instructional Media	3
EDUC 4250	Job & Learning Task Analysis	2
EDUC 4350	Instructional Design and Curriculum Development in Training Settings	3
EDUC 4550	Organization and Management of Training Programs	3
EDUC 4650	Educational Foundations for Trainers	2

45-71

PROFESSIONAL PRACTICE SPECIALIZATION — LEVEL III

43-49

EDUC 4800	Advanced Professional Seminar	1
EDUC 4901	Internship for Teachers	9
Specialized professional courses		3-17
Specific Subject Endorsements		30-53

EDUC 4800	Advanced Professional Seminar	1
EDUC 4950	Internship in Training Settings	6-12
*EDUC 4750	Special Problems - Educational Services	1-3
*EDUC 4850	Practicum in Training Settings	1-3
Supportive Collateral Studies		36
Representing Professional Practice setting (All programs will include courses in organizational development and organizational change)		

Variable

SELECTIVES

8-16

132 Total**GRADUATION****Total 132**

*Elective courses to be used based upon individual student needs.

the College of Education. Normally, student teaching assignments are full day in length for a designated number of weeks. Unique situations requiring a different arrangement must be approved by the Director.

Internship/student teaching is offered during the fall and spring semesters in area schools. Opportunities are provided for observation of sound teaching practices and for realistic experiences under the direction of cooperating teachers, culminating in the assumption of full-time teaching responsibilities.

Students are normally expected to enroll for nine hours of Internship/student teaching; however, students with a major in Early Childhood Education (K-3) are required to enroll for twelve hours of student teaching during the senior year. This experience is to be divided between primary grades and kindergarten.

Students who have completed all or part of their student teaching experiences prior to enrolling at Memphis State, and who desire to receive this institution's recommendation for certification, should expect to complete a minimum of six semester hours of credit in student teaching at Memphis State University.

A limited program of student teaching is offered through the summer session. Information concerning the summer program, including requirements for enrolling, may be obtained from the Director of Professional Laboratory Experiences.

Grades in student teaching are reported as S (satisfactory) or U (unsatisfactory).

Requirements for enrolling for Internship/student teaching are:

1. Filing of application with the Director of Professional Laboratory Experiences during the semester prior to the one in which the internship is to be done. Applications must be filed by March 1 for the fall semester, and by October 1 for the spring semester.
2. Admittance to and good standing in the Teacher Education Program.
3. Classification as a senior or graduate student.
4. Completion of at least one semester of residence at Memphis State University (minimum of twelve semester hours).
5. All courses in the endorsement area(s) complete.
6. All prerequisite professional education courses complete.
7. Overall QPA of at least 2.25.
8. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
9. QPA of 2.5 in all required professional education courses.
10. Grade of C or above in each required professional education course.
11. Recommendation by a faculty committee.

NOTE: STUDENTS WHO ENROLL FOR INTERNSHIP/STUDENT TEACHING MAY NOT REGISTER FOR ANY COURSE WHICH IS SCHEDULED TO MEET AT A TIME WHICH WOULD CONFLICT WITH THE STUDENT TEACHING ASSIGNMENT.

Graduation

To be recommended for graduation, students must complete the requirements listed below. Students eligible to graduate under earlier catalogs who elect to meet the new program requirements should consult with the General Advisor con-

cerning admission and graduation requirements.

1. Minimum of 132 semester hours of which at least 45 hours must be upper division hours and at least 60 hours of liberal content courses. Courses in the following fields will meet the liberal content requirement: anthropology, art (non-applied), biology, chemistry, economics, English, geography, geology, history, journalism (non-applied), languages, mathematics, music (non-applied), philosophy, physics, political science, psychology, sociology, and speech. The following courses offered in The College of Education may be used also: EDUC 2600, 3301, 3302, 3350; HLTH 1102, 1202; HMEC 1101, 2202, 3301. Specified courses within some endorsement areas may also meet this requirement, and information on these may be secured from The College of Education General Advisor.
2. Overall QPA of no less than 2.25.
3. QPA of no less than 2.25 in all courses taken at Memphis State University, excluding all credit transferred from other institutions.
4. QPA of no less than 2.5 in all courses fulfilling the completion of each endorsement area.
5. QPA of no less than 2.5 in all required professional education courses.
6. Grade of C or above in each required professional education course.
7. Take the Core Battery of the National Teacher Examinations (NTE).

NOTE: Any courses taken in excess of those needed to fulfill the requirements of professional education courses and major and minor endorsement areas, are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of the major advisor, designates where the elective courses are to be applied.

CURRICULUM

Course requirements for a Bachelor of Science in Education degree which leads to teacher certification include successful completion of (I) the general education curriculum, (II) physical education activity courses, (III) the professional education core curriculum and the professional education curriculum-specialized courses in a major, and (IV) a major endorsement in one or more teaching areas.

I. GENERAL EDUCATION CURRICULUM (45 semester hours)

(Courses in the general education curriculum may, if applicable, be used to meet requirements in the endorsement areas.)

English (12 hours): ENGL 1101, 1102, and two courses from 2101, 2102, 2103, 2104, 2105, 2106.

Health and Personal Development: HLTH 1102; HMEC 1101 OR PSYC 1101.

Humanities (3 hours): art (non-applied), foreign languages (2000 level or above), music (non-applied), OR philosophy.

Communications: COMM 2912.

Natural Sciences (9 hours): (to include one two-semester laboratory sequence) in two of the following sciences: biology, chemistry, physics, earth sciences (defined for purpose of this requirement to include GEOG 1101, 1102, 4111, 4121, 4122, 4131, and any course in geology.)

Elementary and Early Childhood Education majors elect BIOL 2001, 2002; PSCI 1031, 1032.

Physical Education and Health Education majors elect BIOL 1631, 1632.

Industrial Arts majors elect PHYS 1111, 1112; CHEM 1051.

Social Sciences: HIST 2601, 2602 (6); one elective from anthropology, economics, geography (other than the earth science courses listed above), political science, or sociology.

Elementary and Early Childhood Education majors elect GEOG 2301 OR 2311.

Mathematics (3 hours): MATH 1181 or any higher-numbered Mathematics course.

Elementary, Early Childhood and Special Education majors elect MATH 1181.

Industrial Arts majors elect MATH 1213.

II. PHYSICAL EDUCATION

Two semesters of physical education activity courses. For details, see *Graduation from the University*.

Elementary and Early Childhood Education majors elect PHED 1811 and one other activity course.

Physical Education majors elect PHED 1002; PHED 1713 or 1722.

III. PROFESSIONAL EDUCATION CURRICULUM (29-51 hours)

A. PROFESSIONAL STUDIES CORE—LEVEL I (12 hours): EDUC 2500, 2600, 3000, 3100, 3200.

B. PROFESSIONAL STUDIES CORE—LEVEL II (12 hours): EDUC 3301 OR 3302, 3401, 3501, 3600, 3701, 4601.

C. PROFESSIONAL PRACTICE SPECIALIZATION—LEVEL III (14-27 hours)
Specific requirements for each endorsement area to include appropriate methods courses for each major and minor endorsement area, advanced professional seminar (if required), and internship for teachers (a minimum of 9 semester hours, unless otherwise specified, in the major endorsement area).

1. GRADES K-8 MAJORS AND ENDORSEMENT AREAS
a. Elementary Education (27 hours): ELED 3241, 3251, (3), 3261, 3271, 4242, 4243, 4344; EDUC 4800, 4901 (9).

b. Early Childhood Education (27 hours): ELED 3111, 3121, 3241, 4242, 4243; EDUC 4800, 4901001 (6), 4901002 (6).

2. GRADES K-12 MAJORS AND ENDORSEMENT AREAS
a. Art Education (14-17 hours): SCED 3321 (same as ART 4421); SCED 4342; (SCED 4441, EDUC 4800, for 8.S.Ed. only), EDUC 4901 (9).

b. Health Education (17 hours): SCED 3332 (same as HLTH 3102); SCED 4342, 4441; EDUC 4800, 4901 (9).

c. Librarian: no methods course required.

d. Music Education (18 hours): SCED 3322 (same as MUSE 4203); MUSE 4206; SCED 4342; EDUC 4800, 4901 (9).

e. Physical Education (15 hours): SCED 3331 (same as PHED 3807); SCED 4342; EDUC 4800, 4901 (9).

f. Special Education (22 hours): SPER 3012, 3013, 4012, 4013; EDUC 4800, 4901 (9).

3. VOCATIONAL - GRADES 7-12 MAJORS AND ENDORSEMENT AREAS

a. Distributive Education (17 hours): SCED 3380 (same as DTED 4630); SCED 4342, 4441; EDUC 4800, 4901 (9).

b. Vocational Home Economics (17 hours): SCED 3383 (same as HMEC 3383); SCED 4342, 4441; EDUC 4800, 4901 (9).

4. SECONDARY EDUCATION GRADES 7-12 MAJOR AND ENDORSEMENT AREAS

a. Business Education (18 hours): For major endorsement, SCED 3378 and 3379 for alternative 1; SCED 3376 and 3377 for alternative 2; SCED 4342, 4441; EDUC 4800, 4901 (9). For minor endorsement, SCED 3376 and 3377 for Secretarial Practice; two courses from SCED 3377, 3378, 3379 for Bookkeeping/General Business/Typewriting; SCED 3379 and one course from SCED 3376, 3377, 3378 for Economics/Consumer Education/General Business. For specific endorsements, choose from the following in consultation with and approval of major advisor: SCED 3376, 3377, 3378, 3379.

b. Driver Education: no methods course required.

c. English (22 hours): SCED 3341, 4341, 4342, 4441, ELED 4243; EDUC 4800, 4901 (9).

d. Foreign Languages (17 hours): SCED 3348, 4342, 4441; EDUC 4800, 4901 (9).

e. Industrial Arts (17 hours): SCED 3384 (same as VTED 4210); SCED 4342, 4441; EDUC 4800, 4901 (9).

f. Mathematics (20 hours): SCED 3351, 4342, 4441; ELED 3251 (3) is required for major endorsement and highly recommended for minor endorsement; EDUC 4800, 4901 (9).

g. Science (17 hours): SCED 3362, 4342, 4441; EDUC 4800, 4901 (9).

h. Social Studies (17 hours): SCED 3371, 4342, 4441; EDUC 4800, 4901 (9).

i. Speech and Drama (17 hours): SCED 3346, 4342, 4441; EDUC 4800, 4901 (9).

EXCEPTIONS TO PROFESSIONAL EDUCATION CURRICULUM:

Business Education majors are not required to take EDUC 3100, 3600, 3701.

Physical Education majors take PHED 3803 in lieu of EDUC 3301 or 3302.

Special Education majors take SPER 2000 in lieu of EDUC 3401.

Vocational Home Economics majors take HMEC 3301 in lieu of EDUC 3301.

BFA/Art Education majors are not required to take EDUC 2500, 3200, 3301 or 3302, 3600, 3701, 4800.

BST Industrial Arts majors are not required to take EDUC 2500, 3100, 3501, 3701.

8FA/Music Education majors are not required to take EDUC 3100; 3301 or 3302; 3401, 3501, 3701.

IV. SPECIFIC SUBJECT ENDORSEMENTS

Students must complete requirements in at least one major teaching endorsement area.

The student may elect to complete requirements for more than one major endorsement or for a major endorsement and one or more minor endorsements. The minimum number of hours required for a major or minor endorsement varies according to the characteristics and needs of different teaching fields. A QPA of 2.5 in courses fulfilling each endorsement is required.

A. CERTIFICATES FOR KINDERGARTEN — GRADE 8

- Elementary Certificate — Grades 1-8 (44 hours)**
ART 3411; MUSE 3001; HLTH 3306; MATH 1182, 2581; COMM 2912; PHED 3806 (3); LBS 4111 (2); Social Sciences — (6) GEOG 2301 OR 2311; SOCI 1111 OR 3831; Natural Sciences — (12) BIOL 2001, 2002 (or 1111, 1112, and 3050); PSCI 1031, 1032.

SELECTIVES: (4) supportive of endorsement area and chosen in consultation with and approval of major advisor.

2. Kindergarten (10 hours)*

The endorsement in Kindergarten may be added only to a certificate in elementary education. The student must complete the requirements for the elementary certificate and ELED 2211, 3121, and EDUC 4902 (3).

3. Early Childhood Education — K-3 (41 hours)

ART 3411 OR MUSE 3001; HLTH 3306; MATH 1182 OR 2581; COMM 2912; HMEC 4101; ELED 2211, 4411; PHED 3806 (2); Social Science — (6) GEOG 2301 OR 2311; SOCI 1111 OR 3831; Natural Sciences — (12) BIOL 2001, 2002 (or 1111, 1112, and 3050); PSCI 1031, 1032.

B. CERTIFICATES FOR GRADES K-12

1. Art Education

Major Endorsement (36-39 hours): Art 1101 (OR 2101 and 2102), 1201, 1204, 1311, 1314, 2201, 2313, 3411, 3421, 4167, 4168, 4424.

Minor Endorsement: Not available

2. Health Education*

Major Endorsement (39 hours): HLTH 1102, 1202, 3202, 3402, 4102, 4204, 4205, SAFE 2102, 2202; HMEC 2202; BIOL 1631, 1632; Health elective (3).

Minor Endorsement (27 hours): HLTH 1102, 1202, 3402, 4102, 4204, 4205, SAFE 2102, BIOL 1631, 1632.

3. Librarian

Major Endorsement: Not available

Minor Endorsement (21 hours): LBS 4111 (3), 4121, 4131, 4232, 4331, 4401; EDUC 3600. For certification as librarian, a student must complete all requirements for either the elementary certificate OR the secondary certificate with a major endorsement in a subject area.

4. Physical Education*

Major Endorsement (53 hours): PHED 1002, 1713 OR 1722, 2004, 2005, 2006, 2007, 2008, 2009, 2101, 2903, 3303, 3403, 3703, 3803, 3806, 4204, 4503; SAFE 3502; BIOL 1631, 1632. Select one of the following: PHED 2103, 2203, 2303, 2403, OR 2503.

Minor Endorsement: Not available

5. Special Education

Major Endorsement (36 hours): SPER 2000, 3014, 3015, 3201, 3401, 3501, 3516, 3901; PHED 3303; ELED 3251 (2), 4242, 4344.

Minor Endorsement (28 hours): SPER 2000, 3014, 3015, 3201, 3401, 3501, 3516; ELED 3251 (2), 4242.

C. CERTIFICATES FOR VOCATIONAL AREAS — GRADES 7-12

1. Distributive Education

Major Endorsement (39-45 hours): ECON 2110, 2120; DTD 2106, 3010, 4641; MKTG 3010, MKTG elective (3); HMEC 4600 (6); 12 hours of electives in business administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with and approval of major advisor).

Work Experience — Choose Plan (a) or (b): (a) 2 years of acceptable work experience in one or more marketing occupations. (b) 1 year of acceptable work experience in marketing occupations plus HMEC 4705 or HMEC 4804 or MKTG 4991, or another approved University supervised occupational experience practicum. (2000 clock hours part-time experience equals one year).

Minor Endorsement (21-27 hours): ECON 2110; MKTG 3010, MKTG elective (3); HMEC 4600, 6 hours of electives in business administration and/or journalism directly related to the distributive education curriculum (to be chosen in consultation with and approval of major advisor). Work Experience. Same as major endorsement.

2. Vocational Home Economics

Major Endorsement (40 hours): HMEC 1100, 1101, 1105, 2102, 2104, 2202, 3100, 3204, 3301, (same as EDUC 3301), 3401, 4103, 4405, selectives in HMEC (12)

The following optional concentration and endorsement areas require the completion of the major requirements in vocational home economics in addition to the courses specified in the desired area(s). Occupational major subject courses must be completed prior to internship.

- Occupational Child Care Services (18 hours): HMEC 3393, 4101, 4301; ELED 2211, 3111, 4411.
- Occupational Food Services (18 hours): HMEC 3302, 3393, 3602, 4202, 4302, 4502.
- Occupational Clothing Services (18 hours): HMEC 2205, 3393, 4305, 4315, 4405, 4505

Minor Endorsement: Not available

D. CERTIFICATES FOR GRADES 7-12*

1. Business Education (39 hours)

a. Business Education Core (18): ACCT 2010, 2020, ECON 2110, 2120, MGMT 1010 OR FIR 3011; MATH 2291 OR OFAD 3510.

b. Major Endorsement (21 hours plus 18-hour core): Both MATH 2291 and OFAD 3510 are required for major endorsement. Select alternative (1) OR (2) in addition to Business Education Core.

(1) ACCT 2720; 3010 OR 3110; MKTG 3010 and 3410 OR ECON 3610 and FIR 3410; FIR 3130; HMEC 4103; MGMT 1010 and FIR 3011 are both required.

(2) 6 hours in shorthand, including one course in advanced shorthand; 6 hours in typewriting, including one course in advanced typewriting; OFAD 4270; 4320 OR 4410.

c. Minor Endorsements (10-18 hours plus 18-hour core)

(1) Secretarial Practice (18): OFAD 4270; 4320 OR 4410; 6 hours in shorthand, including one course in advanced shorthand; 6 hours in typewriting, including one course in advanced typewriting.

(2) Bookkeeping - General Business - Typewriting (10 hours): ACCT 2720, 3010 OR 3110; 6 hours in typewriting, including one course in advanced typewriting. NOTE: MATH 2291, MGMT 1010 and FIR 3011 must be added if not taken as part of core.

(3) Economics - Consumer Education - General Business - Business Law (11 hours): ECON 3610; FIR 3130, 3410; HMEC 4103. NOTE: MATH 2291, MGMT 1010 and FIR 3011 must be added if not taken as part of core.

d. Specific Business Endorsements (18-hour core and a major endorsement in Business Education must also be completed).

(1) Bookkeeping (4): ACCT 2720, 3010 or 3110.

(2) Business Arithmetic (3 or 6): MATH 1211 and 2291 (may be included in core).

(3) Business English (3): OFAD 3510 (may be included in core).

(4) Business Law (3 or 6): FIR 3011 (may be included in core); 3130.

(5) Business Machines (3): OFAD 4270.

(6) Consumer Education (2): HMEC 4103.

(7) Economics (6): ECON 3610; FIR 3410.

(8) General Business (6): FIR 3011 (may be included in core) OR 3130; Mathematics (3) chosen in consultation with and approval of major advisor. NOTE: MGMT 1010 must be added, if not taken as part of core.

(9) Office and Clerical Practice (3): OFAD 4320 or 4410.

(10) Salesmanship (6): MKTG 3010, 3410.

(11) Secretarial Practice (15): Endorsement in Office and Clerical Practice, Shorthand and Typewriting.

(12) Shorthand (6): 6 hours in shorthand, including one course in advanced shorthand.

(13) Typewriting (6): Six hours in typewriting, including one course in advanced typewriting.

2. Driver Education

Major Endorsement: Not available

Minor Endorsement (23 hours): SAFE 2102, 2202, 4335, 4336, 4337, 4338, EDUC 3600. Electives (6) selected from safety education courses.

3. English

Major Endorsement (36 hours): 12 hours freshman and sophomore level courses: ENGL 1101, 1102, and any two of the following: 2101, 2102, 2103, 2104, 2105, 2106; 24 upper division hours: ENGL 3321 OR 4321; 3322 OR 4322, 4323 OR 4233; 3501; 4501; 4602; 3211 OR 3212 OR 3213 OR 3214; 3221 OR 3222 OR 3224.

Minor Endorsement (27 hours): 12 hours freshman and sophomore level courses (same as required for major endorsement); 15 upper division hours: ENGL 3321 OR 4321; 3322 or 4322; 3501 OR 4501; 4602; and any one of the following: 3211, 3212, 3213, 3214, 3221, 3222, 3224.

4. Foreign Languages

Endorsement may be obtained in French, German, Latin, Russian and/or Spanish. Two or more high school units of one foreign language may be used in place of freshman level courses in that language. Credit in any of the lower division courses may be earned by proficiency. Electives should be chosen in consultation with and approval of the major advisor. Students electing a major endorsement in German, Latin or Russian must complete requirements for another major endorsement or minor endorsement in a complementary teaching area.

Each of the following major and minor endorsement areas requires 12 semester hours of that specific language from lower division courses or the equivalent, in addition to the required upper division courses listed below.

e. French

Major Endorsement (33 hours): FREN 3301, 3302, 3411, 4301, 4305, 3401 OR 4306; elective (3).

Minor Endorsement (24 hours): FREN 3301 plus 3 upper division courses selected from the following: FREN 3302, 3401, 3411, 4301, 4305, 4306.

b. German

Major Endorsement (33 hours): GERM 3301, 3302, 3411 OR 3412, 4501; electives (9).

Minor Endorsement (24 hours): GERM 3301 plus 3 upper division courses selected from the following: GERM 3302, 3411, 3412, 4501.

c. Latin

Major Endorsement (33 hours): 21 upper division hours selected from the following: LATN 3111, 3211, 3811, 3912, 4411, 4611, 4711; Classics 4791 (6 hours acceptable only when accompanied by the instructor's written verification that the content is Latin language).

Minor Endorsement (24 hours): 4 upper division courses selected from the following: LATN 3111, 3211, 3811, 3912, 4411, 4611, 4711.

d. Russian

Major Endorsement (33 hours): RUSS 3301, 3302, 3441, 3442, 3443, 3444, elective (3).

Minor Endorsement (24 hours): RUSS 3301 plus 3 upper division courses selected from the following: RUSS 3302, 3411, 3412, 3441, 3442, 3444.

e. Spanish

Major Endorsement (33 hours): SPAN 3300 (6); 3410, 3510, 4302, one linguistics course (3 hours in consultation with and approval of major advisor), elective (3).

Minor Endorsement (24 hours): SPAN 3300 (3); plus 3 upper division courses selected from SPAN 3300 (3), 3410, 3510, 4302, one linguistics course (3 hours in consultation with and approval of major advisor).

5. Industrial Arts Education*

Major Endorsement (46 hours): TECH 1511, 1611, 1711, 1811, 1821, 2555, 3350, 3601, 3718, 4355; VTED 1011; 6 hours from the following: ART 2213, 2221, or JOUR 2520; 6 hours of electives in technology.

Minor Endorsement (40 hours): TECH 1511, 1611, 1711, 1811, 1821, 2555, 3350, 3601, 3718, 4355; VTED 1011; 6 hours from the following: ART 2213, 2221 or JOUR 2520.

NOTE: Additional certification in the following single subjects may be earned by completing 3 additional hours in each area desired: a. Drafting; b. Electricity/Electronics; c. Metals; d. Plastics; e. Woods and Construction.

6. Mathematics

Major Endorsement (32 hours): MATH 1213, 1321, 2321, one course each in Computer Programming and in Probability; five additional courses to include 9 hours of upper division courses, selected in consultation with and approval of major advisor.

Minor Endorsement (19 hours): MATH 1213, 1321, one course each in Computer Programming and in Probability; two additional upper division courses selected in consultation with and approval of major advisor.

7. Psychology*

Major Endorsement: Not Available

Minor Endorsement (21 hours): PSYC 1101; PSYC 2302 OR SOCI 3322; PSYC 3106 OR SOCI 3701; 6-9 hours from PSYC 3101, 3102, 3103; SOCI 4760; 3-6 hours from any other undergraduate courses taught in the Department of Psychology or Educational Psychology in the Department of Foundations of Education (EDPS).

8. Science*

a. Biology

Major Endorsement (35 hours): BIOL 1111, 1112, 2000, 3050, 3070, 3100, 3500; CHEM 1111, 1112 (Corequisite: MATH 1211, 1212, or 1321).

Minor Endorsement (23 hours): BIOL 1111, 1112, 2000, 3070; CHEM 1111, 1112 (Corequisite: MATH 1211, 1212, or 1321).

b. Chemistry

Major Endorsement (32 hours): CHEM 1111, 1112, 3201, 3211, 3301, 3302, 3311, 3312, 3401, 3407; PHYS 2111, 2112 (Prerequisite: MATH 1212).

Minor Endorsement (20 hours): CHEM 1111, 1112, 3201, 3211, 3301, 3302, 3311, 3312.

c. Physics

Major Endorsement (32 hours): PHYS 1811, 1812, 2111, 2112 (Prerequisite: MATH 1212), 3010, 3211, 3510; CHEM 1111, 1112.

Minor Endorsement (25 hours): PHYS 1811, 1812 (or an approved physics elective), 2111, 2112 (Prerequisite: MATH 1212), 3010; CHEM 1111, 1112.

d. General Science

Major Endorsement (37 hours): BIOL 1111, 1112, 2000, 3070; CHEM 1111, 1112 (Corequisite: MATH 1211, 1212 or 1321); PHYS 1811, 2111 and 2112 (Prerequisite: MATH 1212); Earth Science elective (3).

Minor Endorsement (23 hours): BIOL 1111, 1112; CHEM 1111, 1112, (Corequisite: MATH 1211, 1212 or 1321); PHYS 2111 (Prerequisite: MATH 1212); Earth Science elective (3).

e. Earth and Space Sciences

Major Endorsement (34 hours): GEOL 1101, 1201, 2312, 3100; PHYS 1811; GEOG 1101, 3501; 9 hours from the following: GEOG 3221, 4111 OR 4211; GEOG 4121 OR 4122; GEOG 4131.

Minor Endorsement (24 hours): GEOL 1101, 2312, 3100, PHYS 1811; GEOG 1101, 4111, 4131.

9. Social Studies*

e. Broad Fields

Major Endorsement (48 hours): HIST 1301, 1302, 2601, 2602, plus 3 hours upper division elective in American History; ECON 1010 OR 2110; 2120, POLS 1100, 2301; SOCI 1111 OR 1112; 3422; GEOG 1401; 2301 OR 2311; 9 hours in upper division courses from one or more of the following: HIST, ECON, POLS, SOCI, GEOG, ANTH. (At least 15 hours must be in upper division courses).

b. History

Major Endorsement (42 hours): Major endorsement in History includes a minor endorsement in a designated cognate area. History (24 hours): HIST 1301, 1302, 2601, 2602; 12 hours of upper division courses, 6 hours of which must be in American History. Cognate Area (18 hours): Must be in one of the following cognate areas: ECON, POLS, SOCI, GEOG; 6 hours must be in upper division courses.

Minor Endorsement (18 hours): HIST 1301, 1302, 2601, 2602, 6 hours of upper division courses, 3 hours of which must be in American History.

c. Economics, Geography, Government, and Sociology

Major Endorsement (30 hours): 24 hours of work in the designated major area, selected in consultation with and approval of the major advisor, 18 hours of which must be from upper division courses. Up to 6 hours may be taken in cognate social science areas supportive to the major endorsement (excluding HIST 2601, 2602), and selected in consultation with and approval of major advisor.

NOTE: These four areas may be selected as a major endorsement area only if taken in combination with a major or minor endorsement in history or with a major endorsement in some other teaching area.

Minor Endorsement (18 hours): 12 upper division hours in the designated major area, selected in consultation with and approval of major advisor. Up to 6 hours may be taken in cognate social science areas supportive to the minor (excluding HIST 2601, 2602), and selected in consultation with and approval of major advisor.

* See advisor for revised endorsement requirements effective September 1, 1984

10. Speech and Drama

Major Endorsement (36 hours): COMM 1780, 1781, 2321; 2781 OR 3322; 3341 OR 4341; 4922; THEA 1411, 1561, 2530, 3521, 3542 (3); 4921.

Minor Endorsement (21 hours): COMM 1780, 1781, 2321, 4922; THEA 1411, 1561, 4921.

Educational Services Program REQUIREMENTS

Admission

Students who wish to prepare themselves as educational services professionals for careers in non-school settings must make formal application for admission to The College of Education. The admission process should be initiated as soon as students enroll in courses in the Professional Studies Core-Level I. All admission requirements must be met before other advanced level professional education courses can be taken; however, students may continue to enroll in courses in the general education curriculum or in the supportive collateral studies component.

Prerequisites for formal admission to the Educational Services Program are:

1. Admission application complete.
2. Grade of C or above in ENGL 1101 and a QPA of 2.0 in any other required English course completed at the time of application.
3. Grade of C or above in COMM 2912.
4. A minimum of 15 semester hours completed.
5. Overall QPA of no less than 2.0.
6. Three recommendations from appropriate individuals addressing the student's ability, communication skills, and personal and professional characteristics.

Retention

Retention in the Educational Services Program is a continuing process. Monitoring student progress will be done at appropriate intervals. The requirements for retention are:

1. Overall QPA of no less than 2.25.
2. Grade of C or above in each required professional education course.
3. QPA of at least 2.25 in all required professional education courses.
4. Grade of C or above in each required course in the supportive collateral studies component.
5. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies requirement.
6. Favorable evaluation of student's performance in all required field and laboratory experiences. (Course grades alone may not be used to meet this requirement.)

As long as all requirements are met the student will remain in good standing. If all requirements for retention have not been met, a faculty committee will review the student's academic record and other pertinent information and set up an interview with the student. This review may result in a recommendation for (1) continuation for a specific provisional period with specific conditions or (2) dismissal from the program.

Pre-Internship Clinical Experiences

Students pursuing an Educational Services major will complete, as a part of

their studies, a clinical experiences in a variety of settings which typically will be completed as a requirement built into professional education courses. In some instances, it may be necessary to complete an experience as a free-standing non-credit rendering activity.

Clinical experiences include both laboratory experiences (typically fulfilled on campus) and field experiences (typically fulfilled off-campus). The amount of time spent in a clinical experience will vary according to the requirement being met. Fulfillment of these experiences will require students to make available out-of-class time. In certain instances, this time may need to be scheduled between 7:30 a.m. and 5:00 p.m.

Completion of field experiences will occur in sites arranged and approved by the MSU-COE Office of Professional Laboratory Experiences.

Internships

Students will be eligible to enroll for the internship during the final year prior to graduation provided the following requirements are met:

1. All courses in the supportive collateral studies component are complete.
2. Overall QPA of no less than 2.25.
3. Grade of C or above in each required professional education course.
4. QPA of no less than 2.25 in all required professional education courses.
5. Grade of C or above in each required course in the supportive collateral studies component.
6. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies requirement.
7. Faculty committee recommendation.

Graduation

To be recommended for graduation, students must complete the following:

1. Completion of 132 semester hours of which at least 45 hours must be upper division and at least 45 hours in liberal content courses.
2. Overall QPA of no less than 2.25.
3. QPA of no less than 2.25 in all courses taken at Memphis State University excluding all credit transferred from other institutions.
4. Grade of C or above in all professional education courses required in Levels I and II.
5. QPA of no less than 2.25 in all required professional education courses.
6. Grade of C or above in all courses fulfilling the completion of the supportive collateral studies component.
7. QPA of no less than 2.25 in all courses fulfilling the completion of the supportive collateral studies component.

NOTE: Any courses taken in excess of those needed to fulfill the requirements of professional education and the supportive collateral studies areas are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of major advisor designates where the elective courses are to be applied.

CURRICULUM

Course requirements for a Bachelor of Science in Education degree in the Educational Services major include successful completion of (I) the general education

curriculum, (II) physical education activity courses, (III) the professional education curriculum, and (IV) the supportive collateral studies component.

I. GENERAL EDUCATION CURRICULUM (42-44 hours)

English (12 hours): ENGL 1101, 1102, and two courses from 2101, 2102, 2103, 2104, 2105, 2106

Health and Personal Development HLTH 1102 and one course from HMEC 1101, PSYC 1101, PHIL 1111, ANTH 1100, 1200.

Humanities (3 hours): art (non-applied), foreign languages (2000 level or above), music (non-applied) OR philosophy.

Communications COMM 2912.

Natural Sciences (6-8 hours): two courses from biology chemistry, physics, earth science (defined for purposes of this requirement to include GEOG 1101, 1102, 4111, 4121, 4122, 4131 and any course in geology).

Social Sciences: HIST 2601, 2602 (6); and one course from anthropology, economics, geography (excluding earth sciences listed above), political science, OR sociology. NOTE: Students may, with the consent of their committee, substitute UNIV 1410 (6) for HIST 2601 and 2602 if credit for American History was earned in high school.

Mathematics or Philosophy (3 hours): Math 1181 or any higher numbered mathematics course; OR PHIL 1611.

II. PHYSICAL EDUCATION

Two semesters of physical education activity courses, for details, see *Graduation from the University*.

III. PROFESSIONAL EDUCATION CURRICULUM (34-40 hours)

A. PROFESSIONAL STUDIES CORE — LEVEL I (12 hours): EDUC 2500, 2600, 3000, 3100, 3200.

B. PROFESSIONAL STUDIES CORE — LEVEL II (15 hours): EDUC 3350, 3600, 4250, 4350, 4550, 4650.

C. PROFESSIONAL PRACTICE SPECIALIZATION — LEVEL III (7-13 hours): EDUC 4800, 4950 (6-12 hours)

IV. SUPPORTIVE COLLATERAL STUDIES

(36 hours): Required core courses — MGMT 3110, MGMT 4420 or their equivalents.

Courses appropriate for each supportive collateral studies area are selected in consultation with the major advisor. These courses must be approved by the Program Planning Committee and the Program Coordinator.

Related Occupational and Professional Programs REQUIREMENTS

Graduation

To qualify for a degree in either Home Economics, Recreation and Park Administration, or Rehabilitation Education, students must complete the following:

1. Minimum of 132 semester hours of which at least 45 hours must be upper division and at least 45 hours in liberal content courses.
2. Overall QPA of no less than 2.0.
3. QPA of no less than 2.0 in all credits earned at Memphis State University excluding all credit transferred from other institutions.
4. QPA of no less than 2.25 in all courses required for fulfilling the completion of the major.

NOTE: Any courses taken in excess of those needed to fulfill the requirements of the major are considered to be general electives and are included only in the calculation of the overall QPA. In those areas where students are required to take elective courses, the student in consultation with and approval of major advisor, designates where the elective courses are to be applied.

CURRICULUM

Course requirements for a degree in one of these areas include successful completion of (I) the general education curriculum, (II) physical education activity courses, (III) related areas of study (if applicable), and (IV) the courses outlined for the major.

I. GENERAL EDUCATION**CURRICULUM (42-45 hours):**

(Courses in the general education curriculum may, if applicable, be used to meet requirements in the major.)

English (12 hours): ENGL 1101, 1102, and two courses from ENGL 2101, 2102, 2103, 2104, 2105, 2106.

Health and Personal Development HLTH 1102; HMEC 1101 OR PSYC 1101.

NOTE 1: Home Economics majors elect HMEC 1101. **NOTE 2:** Recreation majors and Rehabilitation majors elect PSYC 1101.

Humanities (3 hours): art (non-applied), foreign language (2000 level or above), music (non-applied) OR philosophy. **NOTE:** Recreation majors elect a course from the following art, music, theater.

Communications: COMM 1211, 1311, 1780, 2911, 2912 OR THEA 1411. **NOTE:** Recreation majors elect COMM 1311.

Natural Sciences (6-9 hours): (including one two-semester laboratory sequence) in two of the following sciences: biology, chemistry, physics, earth sciences (defined for purpose of this requirement to include GEOG 1101, 1102, 4111, 4121, 4122, 4131, and any geology.) **NOTE 1:** Home Economics majors with a Dietetics concentration elect BIOL 1631, 1632; CHEM 1111. **NOTE 2:** Recreation majors are required to take 6 hours; for Therapeutic Recreation area, elect BIOL 1631, 1632. **NOTE 3:** Home Economics and Rehabilitation majors are required to take 9 hours.

Social Sciences: HIST 2601, 2602 (6); one course from anthropology, economics, geography (other than the earth science courses listed above), political science or sociology. **NOTE 1:** Home Economics majors elect ECON 2110. **NOTE 2:** Recreation majors elect one course from anthropology, sociology, or geography (excluding earth science courses). **NOTE 3:** Rehabilitation majors elect SOCI 1111.

Mathematics (3 hours): MATH 1181 or any higher numbered mathematics courses. **NOTE:** Home Economics majors must elect MATH 1211.

II. PHYSICAL EDUCATION

Two semesters of physical education activity courses. For details, see *Graduation from the University*. **NOTE:** Recreation

majors elect PHED 1713 OR 1722; and one additional activity course.

III. RELATED AREAS OF STUDY (15 hours)

Applies only to Recreation majors: SAFE 2102, PHED 1581, 1812; COUN 4621; EDUC 2600, 3350.

IV. MAJORS**A. Home Economics (67-101 hours)**

1. **General Home Economics Core (16 hours):** HMEC 1100, 1101, 2104, 2202, 3100, 3301 (same as EDUC 3301), 4103.

2. **Concentration Areas:**

a. **Dietetics (83-85 hours):** HMEC 2102, 3204, 3302, 3602, 4102, 4402, 4502, 4602, 4802; CHEM 1111, 1112, 3301, 3302, 3311, 3312, 4511, 4512; BIOL 1631, 1632 OR BIOL 1731, 1732; 3500; ECON 2110, 2120; MGMT 2710, 2750, 3110, 4210; EDUC 2600; ANTH 1200.

b. **Food Administration (54 hours):** HMEC 2102, 3302, 3602, 4202, 4302, 4502; ACCT 2010, 2020; ECON 2110, 2120; MGMT 2710, 2750, 3110, 4210, 4420; MKTG 3010, 3410, 4220.

c. **Merchandising (51 hours):** Merchandising Core (12 hours): HMEC 2106, 3106, 3206, 4600.

Merchandising Business Administration Core (21 hours): ECON 2110; ACCT 2010; 15 hours in MKTG to include MKTG 3010, 3 hours from MKTG 3012, 3610, OR 4080; plus 9 additional hours in MKTG.

Select one from the following (18 hours): Fashion — HMEC 1105, 2005, 4405, 4705; MGMT 2750. Home Furnishings — HMEC 2004, 3204, 4204, 4304, 4504, 4804.

NOTE 1: All Merchandising students: All major subject area courses must be completed before the professional semester required in the Merchandising concentration. A cooperative relationship exists with the Fashion Institute of Technology in New York City, whereby Home Economics-Merchandising majors may enroll for one semester of study in New York with the semester hours earned being transferred toward graduation at Memphis State University.

NOTE 2: All Home Economics majors: Students in all concentrations must complete the application for practicum by mid-

term of the semester before taking the practicum. Students may obtain the form from the major advisor.

B. Recreation and Park Administration (60 hours)

1. **Recreation Core (33 hours):** RECR 2105, 3105, 3205, 3305, 3605, 3905, 4105, 4405, 4505, 4605.

2. **Recreation Program Areas (27 hours):** Students must elect one program area from group A and a different program area from group B.

Group A (18 hours)

Therapeutic Recreation: RECR 3102, 3202, 4102; PHED 3303, 3403, SPER 3901.

Outdoor Recreation: RECR 3103, 3203, 4103 (2), 4305 (1), 4203 (2); PHED 1332, 1781; selective to be chosen in consultation with advisor (3).

Recreation Program Administration: RECR 3104, 3204, 4104, MGMT 3110; ECON 2110; MKTG 3010.

Group B (9 hours)

Therapeutic Recreation: RECR 3102, 3202, 4102.

Outdoor Recreation: RECR 3103, 3203, 4103, 4305 (1).

Recreation Program Administration: RECR 3104, 3204, 4104.

Church Recreation: RECR 2205, 4305 (1), 4905 (Church Recreation topic); PHIL 3701.

Park Law Enforcement: INTD 3510, 3511; RECR 4305 (1).

3. **Required Electives** (6 hours in addition to the major). **Note:** Must be supportive to the major are to be selected in consultation with and approval of major advisor.

C. Rehabilitation Education (81-82 hours)

1. **Rehabilitation Core (53 hours):** SPER 3901, 3911, 3912, 4902, 4903, 4904, 4905, 4941 (6); SWRK 3902, 3903, 3904; PSYC 3101; EDUC 4250, 12 hours from the following: SOCI 3422 OR 4420; 3501, 3521 OR 4522; 3831; 3841 OR 4631; 4851, 4852.

2. **Concentration Areas:**

Rehabilitation Education (28 hours): SPER 2000, 3002, 3201, 3401, 3501; COUN 4621; EDUC 2600, 3302, 3350.

Rehabilitation of the Public Offender (29 hours): SPER 3201, 3501, PSYC 3102; 18 hours of work in the fields of criminal justice, counseling, psychology or sociology selected in consultation with and approval of major advisor.

Vocation Evaluation (28 hours): SPER 3002, 3501, 4913, 4914, 4915, 4916; PSYC 3102, 3508; SOCI 4842.

The Herff College of Engineering

ORVILLE E. WHEELER, B.E., M.S.C.E., Ph.D., P.E., *Dean*
Room 201-D, Engineering Building

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
Civil Engineering	Civil Engineering*	(1) Construction Engineering (2) Environmental Engineering (3) Foundation Engineering (4) Structural Engineering (5) Transportation Engineering	Bachelor of Science in Civil Engineering (B.S.C.E.)
Electrical Engineering	Electrical Engineering*	(1) Solid State Electronics (2) Energy Conversion (3) Control Systems (4) Computer Science (5) Microwave and Antenna Systems	Bachelor of Science in Electrical Engineering (B.S.E.E.)
Mechanical Engineering	Mechanical Engineering*	(1) Chemical Systems (2) Design and Manufacturing (3) Energy Systems (4) Mechanical Systems	Bachelor of Science in Mechanical Engineering (B.S.M.E.)
Engineering Technology	Architectural Technology†		Bachelor of Science in Engineering Technology (B.S.E.T.)
	Computer Systems Technology†		
	Construction Technology†		
	Electronics Technology†		
	Manufacturing Technology†		
	Trade and Industrial Vocational Technical Education	(1) General (2) Industrial Arts	Bachelor of Science in Technology (B.S.T.)

*Note: Accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

†Note: Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET)

PRE-MED ENGINEERING

The Herff College of Engineering at Memphis State University has an option for students enrolled in an engineering program. This option is called "Pre-Med-Engineering." It adds another degree of flexibility to the students' options as they approach the completion of their baccalaureate degree. The program was generated in response to the students' request to qualify for entrance into a medical school in conjunction with a back-up, and highly marketable, degree in an engineering field. This idea is in concert with the changing attitudes of medical schools, which are now encouraging a variety of carefully planned baccalaureate programs. They feel that such liberalization would improve the overall spectrum and qualifications of the medical profession in its attempt to handle the ever-increasing complexity of society's health care problems.

The student interested in this pre-med engineering option should take the first year of the common engineering core—including both semesters of general chemistry. The student progressing through first year should then contact the chairman of an engineering department who is authorized to substitute the courses in organic chemistry for certain technical courses normally taken in the junior and senior years. CHEM 3311 (Organic Chemistry) and CHEM 3301 (Lab) plus CHEM 3312 and CHEM 3302 are the eight semester hours of organic chemistry, while BIOL 1111 and BIOL 1112 are the courses recommended by the medical school admissions office and Memphis State's biology department. These courses should be taken by the student as a junior so as to assist in taking the medical entrance examinations, probably during the senior year. Depending upon the student's schedule, time required for the undergraduate engineering degree, etc., the pre-med-engineering student may take additional biology courses, such as BIOL 3730 (Physiology) or BIOL 3620 (Comparative Anatomy). Also courses in biochemistry are appropriate, but not required.

PURPOSES

The college's function is to serve the educational and research needs of the industrial community, the metropolitan area, the state, and the nation. It accomplishes this function by providing: (1) undergraduate professional education in the principal fields of engineering, (2) undergraduate education in both technical and educational technology, (3) graduate education in all areas, (4) a program of continuing education for the engineering and technological practitioners of the area, (5) assistance in the solution of industrial

problems through utilization of physical facilities and the professional talents of faculty and students, (6) a forum for the interchange of ideas and experiences among members of the industrial community through conferences, institutes and short courses and (7) an increase in the accumulation of knowledge in special fields of interest by a continuing program of study and research.

ORGANIZATION

The Herff College of Engineering is organized into the Departments of Civil Engineering, Electrical Engineering, Mechanical Engineering, and Engineering Technology. Each offers a choice of specialized four-year programs leading to Bachelor of Science degrees and graduate programs.

Advising

High school students, in planning for careers in one of the fields of engineering, should take advantage of preparatory courses. Since engineering is the application of mathematics and physical sciences to imaginative and useful systems, those courses should be emphasized in high school preparation. Courses are available at the University for those not fully prepared. Early enrollment in the summer terms offers excellent opportunity to remove any deficiencies that may exist.

Freshman students who choose to study in The Herff College of Engineering will be advised by an Engineering College counselor until a major has been selected; then they will be advised by a member of their major department. Because of one common core for engineering majors and another for engineering technology majors, internal changes of a student's major may be made efficiently without loss of academic credit.

DEGREE REQUIREMENTS

Degrees Offered

The Herff College of Engineering comprises five departments: Civil Engineering, Electrical Engineering, Geology, Mechanical Engineering, and Engineering Technology.

All have four-year programs leading to the following degrees: Bachelor of Science in Civil Engineering, Bachelor of Science in Electrical Engineering, Bachelor of Science in Mechanical Engineering, Bachelor of Science in Engineering Technology, and Bachelor of Science in Technology.

A five-year program leading to the Master of Science degree is recommended for those students who demonstrate high scholastic abilities. For more information about graduate programs, refer to the Graduate School *Catalog*.

The required curriculum, including elective specialties in each of the various undergraduate programs, is described in detail in the following pages. A minimum quality point average of 2.0 is required for graduation. A maximum of 4 hours of PHED may be applied to the degree.

DEPARTMENTAL REQUIREMENTS

Civil Engineering

The civil engineering program is built upon a foundation of mathematics, physical sciences, and mechanics with supporting courses in the humanities and social studies. The curriculum affords a detailed study of the fundamental principles which comprise the professional practice of civil engineering. Career opportunities include technical or administrative positions in the areas of planning, design, construction, and maintenance of all types of public and private civil engineering projects.

To qualify for the degree of Bachelor of Science in Civil Engineering, a student must satisfy general University requirements, have a grade of "C" or higher in all Civil Engineering courses, and complete the 140 semester hour course sequence outlined below. For credits transferred from another institution, only those Civil Engineering course grades of "C" or higher may be applied toward the degree.

The first semester of the freshman year is common for the civil, electrical, and mechanical engineering curricula.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1321	4	MATH 2321	4
ENGR 1006	3	CIVL 1107	3
ENGR 1021	2	PHYS 2511	4
CHEM 1111	4	CHEM 1112	4
PHED Activity (See Note 1)	2		
	18		18

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
MATH 2322	4	MATH 3391	3
PHYS 2512	4	ELEC 2201	3
CIVL 2131	3	MECH 2332	3
ECON 2120	3	CIVL 2111	3
PHED Activity (See Note 1)	2	H&S Elective (See Note 2)	3
	19		18

JUNIOR YEAR

CIVL 3101	3	CIVL 3122	3
CIVL 3121	3	CIVL 3131	3
MECH 3322	3	CIVL 3135	3
MECH 3325	1	MECH 3161	3
MECH 3311	3	H & S Elective (See Note 2)	3
MECH 3331	3	COMM Elective (See Note 3)	3
MECH 3335	1		
	17		18

SENIOR YEAR

CIVL 4135	3	CIVL 4111	3
CIVL 4141	4	CIVL 4199	3
CIVL 4151	4	CE Elective (See Note 4)	6
CE Elective (See Note 4)	6	H&S Elective (See Note 2)	3
17		15	

NOTE 1: A minimum total of 4 semester hours of PHED and/or ROTC is required.

NOTE 2: 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminating at the 3-4000 level in either humanities or social sciences. At least 9 hours must be taken in the humanities and at least 6 hours must be taken in the social sciences.

NOTE 3: Communications elective to be selected from either ENGL 3601 or COMM 3341.

NOTE 4: Upper division course in civil engineering-advisor's approval required.

Areas of specialization include environmental engineering, structural analysis and design, foundation engineering, transportation engineering, and construction engineering.

CIVIL ENGINEERING

The Major: 56 semester hours in civil engineering courses including CIVL 1107, 2111, 2131, 3101, 3121, 3122, 3131, 3135, 3161, 4111, 4135, 4141, 4151, 4199, and 12 semester hours of civil engineering electives. A student may select courses from the following concentrations to satisfy the required 12 hours of civil engineering electives required for a Bachelor of Science degree in civil engineering. A minimum of 6 hours must be selected from the following design electives: CIVL 4131, 4136, 4148, 4152, 4164.

- Environmental Engineering: CIVL 4143, 4144, 4148, 4191
- Foundation Engineering: CIVL 3136, 4152, 4171, 4191
- Structural Engineering: CIVL 4131, 4136, 4152, 4191
- Transportation Engineering: CIVL 4162, 4164, 4191
- Construction Engineering: CIVL 4164, 4171, 4172, 4173, 4174, 4191

Electrical Engineering

Students enrolled in electrical engineering are offered a modern, well-balanced curriculum which is designed to provide a thorough background and understanding of the theoretical and physical principles of electric and magnetic phenomena. The concepts and techniques of mathematics and physics are applied in a wide variety of studies designed to guide the student into a career which will enable him to contribute to the design, construction, and utilization of products which are beneficial to man. At the same time, the curriculum provides adequate flexibility for the student to specialize in one of the many diverse and exciting areas of modern technology.

Laboratory facilities are available for a wide variety of instructional and research activities. These facilities are located in a modern engineering building which provides the latest in facilities and equipment.

Career opportunities include positions in development and design, research, sales, management, manufacturing, and construction. Some of the technical areas of opportunity lie in the design, development and use of digital computers, communications systems, power generation and distribution systems, microwave and antenna systems, automatic control systems, and general instrumentation. An undergraduate student, with the approval of the department chairman, may also elect to take special technical and

humanities and social science electives which satisfy the course entrance requirements for medical school.

The Department of Electrical Engineering offers a Master of Science degree for those electrical engineers who desire advanced study in the areas of computers, microwave and antenna systems, communications systems, solidstate electronics and automatic control systems.

The minimum requirements for the degree of Bachelor of Science in Electrical Engineering are as follows (the first semester of the freshman year is common for the Civil, Electrical and Mechanical Engineering curricula). An average grade of C must be maintained in all undergraduate electrical engineering course work.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1321	4	MATH 2321	4
ENGR 1006	3	ELEC 1207	3
ENGR 1021	2	PHYS 2511	4
CHEM 1111	4	NATURAL SCIENCE	4
PHED or ROTC	2	(See Note 1)	
18		18	

SOPHOMORE YEAR

ENGL 21--*	3	ENGL 21--*	3
MATH 2322	4	MATH 3391	3
PHYS 2512	4	ELEC 2201, 2203	4
CIVL 2131	3	MECH 2332	3
ELEC 2222	4	ECON 2110	3
		PHED or ROTC	2
18		18	

*See Graduation from the University, for options.

JUNIOR YEAR

ELEC 3201	4	ELEC 3202	3
ELEC 3211, 3213	4	ELEC 3212	4
ELEC 3221	3	ELEC ENGR. Elective	3
ELEC 3240	3	(See Note 3)	
Technical Elective (See Note 2)	3	COMM Elective (See Note 4)	3
		H & S Elective (See Note 5)	3
17		16	

SENIOR YEAR

ELEC 4280	3	ELEC 4231	3
ELEC 4201, 4203	4	MECH 3311	3
Elec. Engr. Elective (See Note 3)	7	Technical Elective (See Note 2)	4
H & S Elective (See Note 5)	3	H & S Elective (See Note 5)	3
17		13	

NOTE 1: To be selected from CHEM 1112, GEOL 1101, BIOL 1200, 1600, 1731.

NOTE 2: Upper division courses in engineering, mathematics, physics. Advisor approval required.

NOTE 3: Upper division courses in electrical engineering. Courses selected must include sufficient design content. Advisor approval required.

NOTE 4: To be selected from ENGL 3601, COMM 3341.

NOTE 5: 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminating at the 3-4000 level in either humanities or social sciences. At least 9 hours must be taken in the humanities and at least 6 hours must be taken in the social sciences. See advisor for approved list of courses. Advisor approval required.

ELECTRICAL ENGINEERING

The Major: 52 semester hours of electrical engineering courses including ELEC 2201, 2203, 2222, 3201, 3202, 3211, 3212, 3213, 3221, 3240, 4201, 4203, 4231 and 4280. The remaining semester hours of electrical engineering courses may be selected for concentration in one of the areas listed below. The program also includes 7 semester hours of technical electives which students may utilize to broaden their base of knowledge and for concentration in one of the areas listed below. Students are not required to select a concentration. The areas of concentration are:

- Solid State Electronics: ELEC 4223, 4221, 4240 and 4241.
- Energy Conversion: ELEC 4223 and 4202.
- Control Systems: ELEC 3220, 4251, 4261, 4255 and 4256.
- Computer Science: ELEC 3220, 4230, 4232, 4270, 4271 and 4273.
- Microwave and Antenna Systems: ELEC 4212, 4213, 4230 and 4232.

NOTE: Projects I or II, ELEC 4991 or 4992 can be taken for 3 semester hours credit in any of the areas of concentration.

Mechanical Engineering

Mechanical engineering is a broad field, and consequently students are offered a balanced curriculum designed to provide a strong foundation in mathematics, physical sciences and the engineering sciences. Moreover, they study humanities and social sciences to understand more fully the engineer's relationship and responsibilities to society. Finally, mechanical engineers cultivate, through advanced courses in engineering design and synthesis, the ability to apply this knowledge to the analysis and solution of significant engineering problems.

Because of the diverse nature of this work, the mechanical engineer must have a basic knowledge of chemistry, physics, mathematics and the classical disciplines of mechanical engineering, thermal sciences, mechanical sciences, materials sciences and modern techniques of engineering analysis, design and optimization. This diverse background uniquely equips the mechanical engineer to work on a variety of challenging problems, including land and marine vehicles, aircraft and spacecraft, air conditioning systems, power plants, machines, and a host of other devices.

To qualify for the degree of Bachelor of Science in Mechanical Engineering the student must satisfy general University requirements, have a C or better in all mechanical engineering courses, and complete the following curriculum (the first semester of the freshman year is common for the Civil, Electrical and Mechanical Engineering curricula.)

FRESHMAN YEAR

ENGL 1101	3	ENGL 1101	3
MATH 1321	4	MATH 2321	4
ENGR 1006	3	MECH 1307	3
ENGR 1021	2	PHYS 2511	4
CHEM 1111	4	CHEM 1112	4
PHED Activity (See Note 1)	2		
18		18	

SOPHOMORE YEAR

ENGL 21--*	3	ENGL 21--*	3
MATH 2322	4	MATH 3391	3
PHYS 2512	4	MECH 2332	3
CIVL 2131	3	ELEC 2201	3
H & S Elective (See Note 2)	3	ELEC 2203	1
		MECH 3361	3
		PHED Activity (See Note 1)	2
17		18	

* See "Graduation From the University" for options.

JUNIOR YEAR

MECH 3341	3	MECH 3312	3
MECH 3311	3	MECH 3321	3
MECH 3305	3	MECH 3323	3
MECH 3322	3	MECH 3331	3
MECH 3325	1	MECH 3335	1
COMM Elective (See Note 3)	3	ECON 2110	3
16		16	

SENIOR YEAR

MECH 4311	3	MECH 4312	3
MECH 4322	3	Mech. Des. Elec.	4
MECH 4344	3	(See Notes 4 & 5)	
MECH ENGR ELEC	3	MECH ENGR ELEC	3
(See Note 4)	3	(See Note 4)	
CIVL 4111	3	TECHNICAL ELEC	3
H & S Elective	3	(See Note 6)	
(See Note 2)		MECH 4335	1
		H & S Elective	3
		(See Note 2)	
18		17	

NOTE 1. A minimum total of 4 semester hours of PHED and/or ROTC is required.

NOTE 2. 18 hours of course work in the humanities and social sciences are required for the degree including the required English literature and economics courses. The remaining 9 hours must be selected to complete a 6 or 9 hour sequence terminating at the 3-4000 level in either humanities or social sciences. At least 6 hours must be taken in the social sciences.

NOTE 3. Communications elective to be selected from the following courses: ENGL 3601 or COMM 3341.

NOTE 4. A 7 semester hour concentration of upper division mechanical engineering courses to gain depth in one of the following concentration areas: Energy Systems, Mechanical Systems, Design & Manufacturing, and Chemical Systems.

NOTE 5. A 4 semester hour senior design course selected from the courses offered in the concentration area chosen (Note 4).

NOTE 6. An upper division course in engineering, mathematics, physics, chemistry, etc., in support of the chosen concentration area. Advisor's approval required

MECHANICAL ENGINEERING

The Major: 58 semester hours of mechanical engineering courses including 7 semester hours selected from one of the concentration areas listed below. Within each concentration area the first course listed must be taken as the Mechanical Design Elective.

- Design and Manufacturing:**
MECH 4323, 4345, 4325, 4361, 4381, 4382.
- Energy Systems:**
MECH 4313, 4309, 4315, 4316, 4317, 4318, 4331
- Mechanical Systems:**
MECH 4346, 4303, 4345, 4371.
- Chemical Systems:**
MECH 4364, 3364, 4366, 4318

Engineering Technology

Engineering Technology is that part of the technological field which requires the application of scientific and engineering knowledge and methods combined with technical skills in support of engineering activities. The Department of Engineering Technology offers five majors leading to the degree Bachelor of Science in Engineering Technology. These areas are Architectural Technology, Computer Systems Technology, Construction Technology, Electronics Technology, and Manufacturing Technology. The Department of Engineering Technology also offers a major in Trade and Industrial Vocational-Technical Education which leads to the Bachelor of Science in Technology degree.

A grade of C or better must be attained in all upper division (3000-4000) engineering technology courses required in each major.

ARCHITECTURAL TECHNOLOGY

Architectural Technology is that branch of Engineering Technology that concerns itself with those phases of architectural and engineering design as related to buildings. The purpose of the program is to teach design principles and drafting techniques in preparation for tasks that are now required of the architect and the engineer. The course offerings are engineering oriented with emphasis on architectural practices and principles.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1213	3	MATH 1321	4
TECH 1411	1	TECH 1611	3
TECH 1511	3	CHEM 1051	4
TECH 1010	3	COMM 1311	3
TECH 1555	3		
*ROTC or PHED	1-2	*ROTC or PHED	1-2
17-18		18-19	

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
PHYS 2111	4	PHYS 2112	4
TECH 2555	4	TECH 2251	4
TECH 2944	4	TECH 2556	3
TECH 3400	3	TECH 3401	3
18		17	

JUNIOR YEAR

TECH 3471	3	TECH 3472	3
HIST 2601	3	HIST 2602	3
TECH 3531	3	TECH 3491	3
TECH 2561	3	TECH 2511	3
TECH 1451	3	TECH 3411	3
		TECH 3520	4
15		19	

SENIOR YEAR

TECH 3601	3	TECH 4520	3
TECH 4515	4	TECH 4615	5
TECH 4530	3	TECH 4944	3
TECH 4525	3	Gen Elect	3
TECH Elect	3	TECH 3409	1
16		15	

* A minimum total of 4 semester hours of PHED and/or ROTC is required for graduation.

CONSTRUCTION TECHNOLOGY

This four-year program is for students who are interested in preparing for professional careers in construction management, techniques, operations and different areas of the construction industry. As one of the biggest industries in the world, construction has dire need for many young men and women trained for the construction industry or related fields.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1213	3	MATH 1321	4
TECH 1411	1	TECH 1841	3
TECH 1511	3	TECH 2555	4
TECH 1010	3	TECH 1611	3
COMM 1311	3		
*ROTC or PHED	1-2	*ROTC OR PHED	1-2
17-18		18-19	

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
PHYS 2111	4	PHYS 2112	4
TECH 2944	4	CHEM 1051	4
TECH 1451	3	Gen Elect	3
TECH 2511	3	TECH 3451 or	
		TECH 3591	3
*ROTC OR PHED	1-2	*ROTC or PHED	1-2
18-19		18-19	

JUNIOR YEAR

HIST 2601	3	HIST 2602	3
TECH 3400	3	TECH 3386	3
TECH 3411	3	TECH 3401	3
FIR 3310	3	TECH 3491	3
TECH 3531	3	ENGL 3601	3
TECH 3601	3	TECH 3350	3
18		18	

SENIOR YEAR

TECH 3412	3	TECH 3472	3
TECH 3414	3	TECH 4520	3
TECH 3471	3	TECH 4510	3
Elective (Technical)	3	TECH 4381	3
TECH 3440	3	Elective (Technical)	3
TECH 3409	1		
16		15	

* A minimum total of 4 semester hours of PHED and/or ROTC is required for graduation.

ELECTRONICS TECHNOLOGY

This area of study is designed for students interested in the application of electronics theory and techniques to the fields of communications, control instrumentation, and computer electronics. Requirements for this major are as follows:

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1213	3	TECH 1010	3
COMM 1311	3	CHEM 1051	4
TECH 1411	1	MATH 1321	4
TECH 1511	3	TECH 1811	3
TECH 1711	3		
ROTC or PHED	*	ROTC OR PHED	*
16		17	

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
PHYS 2111	4	PHYS 2112	4
TECH 1821	3	TECH 2251	4
TECH 2821	3	TECH 3440	3
TECH 2944	4	TECH 2831	3
ROTC or PHED	*	ROTC or PHED	*
17		17	

* A minimum total of 4 semester hours of PHED and/or ROTC is required for graduation.

JUNIOR YEAR

HIST 2601	3	HIST 2602	3
TECH 3231	3	TECH 3232	3
ENGL 3601	3	TECH 3411	3
TECH 3811	3	TECH 3409	1
TECH 3821	3	TECH 3822	4
TECH 3841	3	TECH 4821	4
18		18	

SENIOR YEAR

TECH 4381	3	TECH 4234	4
TECH 4801	4	TECH 4811	3
TECH 4233	4	TECH 4841	3
TECH 4474 or		TECH 4944	3
TECH 4476	3	Elective (General)	3
Elective (General)	3		
17		16	

MANUFACTURING TECHNOLOGY

This program is for those individuals interested in careers in any of the manufacturing and service industries. Students will study a combination of technological and mechanical concepts coupled with quantitative management techniques that

will enable them to plan, control, design, and manage complex computer controlled, automated industrial systems.

Graduates of the program will be prepared to work in a support role in the areas of manufacturing engineering, industrial engineering, computer aided design and manufacturing, quality assurance, plant engineering, and production management.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1213	3	MATH 1321	4
TECH 1010	3	COMM 1311	3
TECH 1411	1	TECH 1611	3
TECH 1511	3	TECH 1811	3
TECH 1711	3		
ROTC or PHED	1-2	ROTC or PHED	1-2
	17-19		17-19

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
PHYS 2111	4	PHYS 2112	4
CHEM 1051	4	TECH 2251	4
TECH 2944	4	TECH 2511	3
HIST 2601	3	HIST 2602	3
ROTC or PHED	1-2	ROTC or PHED	1-2
	18-19		17-18

JUNIOR YEAR

ENGL 3601	3	TECH 3718	3
TECH 3350	3	TECH 3386	3
TECH 3400	3	TECH 3401	3
TECH 3411	3	TECH 3550	3
TECH 3421	3	TECH 3573	3
TECH 3440	3	TECH 4460	3
	18		18

SENIOR YEAR

TECH 3409	1	TECH 4381	3
TECH 4462	3	TECH 4466	3
TECH 4464	3	TECH 4476	3
TECH 4472	3	TECH 4571	3
TECH 4474	3	Elective (General)	3
TECH Elective	3		
	16		15

TECH 3410, 3611, 4470, 4944, 4950, or 4961.

* A minimum total of 4 semester hours in PHED and/or ROTC is required for graduation.

COMPUTER SYSTEMS TECHNOLOGY

This area of study is designed to prepare for positions that require a knowledge of computer architecture and programming and the application of computers in various industries. Electives may be selected to provide a strong background in one or more areas of study.

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1213	3	MATH 1321	4
TECH 1010	3	TECH 1811	3
TECH 1411	1	CHEM 1051	4
TECH 1511	3	ROTC or PHED	2
TECH 1611			
or			
TECH 1711	3		
ROTC or PHED	2		
	18		16

SOPHOMORE YEAR

ENGL 210-	3	ENGL 210-	3
PHYS 2111	4	PHYS 2112	4
TECH 2251	4	TECH 2821	3
TECH 2944	4	Elective (General)	3
COMM 1311	3	TECH 2261	4
	18		17

JUNIOR YEAR

HIST 2601	3	HIST 2602	3
TECH 3231	3	TECH 3232	3
TECH 3350 or		TECH 3271	4
TECH 3421	3	Technical Elective	3
Technical Elective		ENGL 3601	3
Elective (General)	3		
	15		16

SENIOR YEAR

TECH 4251	4	TECH 4944	4
TECH 4233	4	TECH 4234	4
TECH 4261	4	TECH 4271	4
TECH 4474	3	TECH 4462	3
TECH 4381	3	MGMT 4420	3
	18		18

* A minimum total of 4 semester hours of ROTC and/or PHED is required for graduation.

TRADE AND INDUSTRIAL VOCATIONAL-TECHNICAL EDUCATION

(Bachelor of Science in Technology)

This major is designed for students planning a teaching career in Trade and Industrial Education, Technical Education or Industrial Arts Education. Emphasis can be placed on either the secondary or the post secondary school program. The student may major in Trade and Industrial Vocational-Technical Education with a general concentration or with a concentration in Industrial Arts. Specific requirements are as follows:

Trade and Industrial/VTED Core:

FRESHMAN YEAR

ENGL 1101	3	ENGL 1102	3
MATH 1211		HLTH 1102	3
(Note 1)	3	PSYC 1101	3
Science/Lab	3-4	Science/Lab	3-4
(Note 2)		(Note 2)	
VTED 1011	3	*PHED or ROTC	1-2
*PHED or ROTC	1-2	Occup Specialty	3
Occup Specialty	3	(Note 3)	
(Note 3)			
	16-18		16-18

NOTES FOR INDUSTRIAL ARTS CONCENTRATION:

1. MATH 1213
2. CHEM 1051; PHYS 1111, 1112.
3. TECH 1511, 1711.

SOPHOMORE YEAR

ENGL 21--	3	ENGL 21--	3
HIST 2601	3	HIST 2602	3
COMM 2912	3	EDUC 3200	2
Science/Lab	3-4	EDUC 3302	2
(Note 1)		(Note 4)	
EDUC 2600	3	or	
Occup Specialty	3	EDUC 3350	3
(NOTE 2)		Elective	3
		(Note 2)	
		Occup Specialty	3
		(Note 3)	
	18-19		16-17

NOTES FOR INDUSTRIAL ARTS CONCENTRATION:

1. CHEM 1051; PHYS 1111, 1112.
2. TECH 1611, 2511, 3601 or 3611, 3718.
3. EDUC 3000.
4. EDUC 3302 required.

Trade and Industrial/VTED Concentration:

JUNIOR YEAR

EDUC 3401*	2	VTED 4210	3
or		VTED 4363	3
EDPS 2111	3	SCED 4342	2
VTED 4120	3	VTED Elective	3
VTED 4140	2	Occup Specialty	6
VTED 4310	3		
VTED 4361	3		
Occup Specialty	3		
	16-17		17

* Required for Industrial Arts concentration.

SENIOR YEAR

VTED 4220	3	VTED 4230	3
VTED Elective**	3-9	or	
Elective	3	VTED 4901	3-12
Occup Specialty	6	VTED 4611	3
		VTED Elective	3
		VTED 4110	3
		Occup Specialty	3
	15-21		15-24

* A minimum total of 4 semester hours of PHED and/or ROTC is required for graduation.

** Includes VTED 4010 or equivalent.

Industrial Arts Concentration:

JUNIOR YEAR

TECH 1811	3	TECH 1821	3
TECH 3410	3	or	
ART 2213	3	TECH 3831	3
(Note 1)		TECH 3455	3
EDUC 3401	2	ART 2221	3
TECH 3601	3	(Note 1)	
or		SCED 4342	2
TECH 3611	3	VTED 4210	3
VTED 4310	3	TECH 3718	3
	17		17

Note 1: JOUR 2520 may be substituted for either Art course.

SENIOR YEAR

TECH 3350	3	HUM Elective	3
VTED 4361	3	EDUC 4601	2
VTED 4362	3	EDUC 4800	1
Elective (Soc. Sci.)	3	VTED 4901	9
EDUC 3600	3		
	15		15

THE MINORS

These minors may be selected by students who have majors *other than* any of the Engineering Technology majors.

SAFETY:

TECH 2431, 3386, 4525, 4470, 4950, 4961; PSYC 3301; MGMT 3110, BIOL 1631

SURVEYING:

GEOG 3501, 3511; TECH 1411, 1451, 1511, 3451, 3591; MATH 1213, 1321.

TECHNOLOGY:

TECH 1411, 1511, 1711, and 15 additional semester hours in technology courses, 9 semester hours of which must be from the upper division in one of the specific technology areas.

The University College

H. RAMSEY FOWLER, A.B., A.M.T., Ph.D., *Dean*
Room G-1, Johnson Hall

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
*	Individual Studies	**	Bachelor of Liberal Studies (B.L.S.) Bachelor of Professional Studies (B.P.S.)

*The College is not comprised of departments. Its programs are interdisciplinary and may make use of all departments in the University.

**The student and an advisory committee design contract degrees.

PURPOSE

The University College offers nontraditional degrees for those students whose experience, talents, and interests are best served through a program which emphasizes personally designed education. Through the University College, faculty, students, and off-campus professionals have the opportunity to work together unrestricted by departmental or college boundaries. The college provides individually designed programs for persons whose career goals, academic needs and interests are not met by existing majors, but by appropriate combinations of integrative interdisciplinary courses offered by the University College, existing courses offered by other colleges, credit by examination, credit for non-traditional learning, and internship experiences. For faculty across the University, the University College provides the structure to explore and develop interdisciplinary ventures that may later be subsumed into other degree-granting units. In addition, the College encourages the development of interdisciplinary courses and promotes such alternative instructional methods as teamteaching and teleinstruction. Finally, it seeks to create and maintain a spirit of academic community through careful and concerned advising, and interaction outside the classroom among students, faculty, and staff. The Bachelor of Liberal Studies and Bachelor of Professional Studies degree programs are complementary to the University's role of meeting the academic needs of a diverse population in an urban setting.

ORGANIZATION

The University College both depends upon and contributes to existing programs

at the University through creative use of existing faculty and programs to satisfy legitimate degree program needs which are not currently met. The college has no permanent or full-time faculty of its own; it draws instead on the faculty of other colleges of the University for instructors and advisors. These faculty members serve on a short-term basis while maintaining primary affiliation with their own departments. The knowledge and experience of the faculty from several disciplines enables the University College to offer truly interdisciplinary courses and a broader base for effectively advising students. At the same time, faculty serving the University College gain new perspectives and associations which they may contribute to their own colleges.

The Faculty Council is composed of twelve faculty members from the other five colleges of the University. The Council is jointly responsible with the Dean of the University College in establishing requirements for the selection of the faculty, determining admissions, curriculum and degree requirements, and approving group contract degrees designed for students with similar program needs. In addition, the Council gives advice and counsel to the dean. The students of the University College also serve an advisory role to the Faculty Council and the dean.

ADMISSION

After an applicant has been admitted to Memphis State University through the Office of Admissions and Records, application for admission to the University College may be made in the Office of the Dean. The University College welcomes inquiries from persons who believe that their interests will be best served by a program which emphasizes personally

designed evaluation through contract degrees.

Included in the University College application are a statement of the applicant's educational and career goals and the reason for seeking to fulfill them by means of a University College program. Three letters of recommendation and a \$15.00 screening fee must be submitted, as well as descriptions of work experience, interests, and activities related to career goals.

A letter from the Dean of the University College assigns applicants to temporary advisors for screening interviews, the purpose of which is to determine whether the applicants' needs are best met in the University College or elsewhere. If the temporary advisor recommends acceptance and the dean agrees, students receive letters of acceptance from the dean instructing them to work with their Contract Advising committees on the development of their baccalaureate contracts and reminding them that they must pay \$25.00 contract/advising fees. Contract/Advising committees work with students to develop degree programs which serve the students' needs and the academic requirements of the University College of Memphis State University.

Students may transfer into University College more than the ordinary limit of extension, correspondence or armed services courses, provided they are an integral part of the degree program. A minimum of 60 semester hours of the degree program must be received from a four-year institution.

THE UNIVERSITY COLLEGE DEGREES

The Contract Degree

Students enrolling in the University College may elect either of two degree

programs: the Bachelor of Liberal Studies (BLS) or the Bachelor of Professional Studies (BPS). Both of these degrees must be awarded for programs which are systematic, yet are sufficiently flexible to permit students and advisors to design individual programs of study, i.e., learning contracts.

All contracts will be reviewed and approved by the administration of the University College, but individual contracts will be designed by a Contract/Advising Committee whose responsibility is to assist the student in the development and execution of a degree program which serves the student's needs and meets the academic requirements of the University College and of Memphis State University. The chairperson of that committee must be a faculty member of Memphis State University; the remaining committee members may be appropriate student or off-campus resource persons. The committee may direct the student in the preparation of a portfolio to obtain credit for knowledge gained through experience or non-traditional instruction; see *Fees and Charges*, for a description of credit evaluation fees. The Baccalaureate Contract will include work in these major areas: Liberal Studies, Thematic Studies, Coordinated Study, Special Project, and Electives.

Liberal Studies

Liberal Studies constitute the general education component of the University College. The studies are designed to develop a capacity for effective living through emphasis on integration of the academic disciplines as well as through analytic skills. Each Liberal Studies course is taught by a faculty team drawn from different disciplines; each course examines the values which form the basis of decisions and judgments. The Liberal Studies area is composed of six studies, plus Mathematics 1181 or another mathematics course at the same level or above, or Philosophy 1611. These courses total 37 semester hours and serve as a core for both degrees; they are to be completed by all BLS and BPS candidates. While the specific content of the courses will vary from semester to semester, general course descriptions are included in the *Catalog*. Although this component of the program is interdisciplinary, provision is made for transfer credit from other colleges and credit by examination. Each student will complete a minimum of one Liberal Studies course (UNIV 1010, UNIV 1020, UNIV 1210, UNIV 1410, UNIV 1610, UNIV 1810).

Thematic Studies

Thematic Studies cross departmental and disciplinary lines to examine a theme, problem, issue, or epoch from several points of view. As upper-division courses, they are designed to provide ways for undergraduates to integrate the full scope

of their studies more effectively than they are able to do within the traditional departmental structure. Thematic Studies do, however, require the special knowledge and expertise learned from and fostered by the traditional disciplines. A BLS student will complete a minimum of two Thematic Studies; a BPS student, a minimum of one. Thematic Studies courses carry 6 or 9 semester hours credit each.

Coordinated Study

The Individualized Study component of the program includes a Coordinated Study Program of at least 30 upper-division hours in at least two academic disciplines, plus a special synthesizing project (9 semester hours). Credit may be earned through courses offered by departments in the other degree-granting colleges, credit by examination, credit for experiential learning, internships or apprenticeships, independent studies, additional Thematic Studies courses, and the Special Project. For a University College student, the Coordinated Study Program corresponds to a departmental major. Students must average C or above in 30 upper-division hours of their Coordinated Study Program.

The Special Project

The Special Project will be designed by the Contract/Advising Committee as a synthesizing activity, interdisciplinary in nature, by which the student demonstrates in a sustained manner comprehension and command of the complex skills and understanding encompassed in the degree program. The Special Project carries 9 semester hours credit.

Electives

Students are encouraged to select electives so as to support their coordinated study programs.

DEGREE REQUIREMENTS

LIBERAL STUDIES	SEMESTER HOURS
UNIV 1010	(6)
UNIV 1020	(6)
UNIV 1210	(6)
UNIV 1410	(6)
UNIV 1610	(6)
UNIV 1810	(4)
MATH 1181 or PHIL 1611 (or another math course at the same level or above)	(3)
	<hr/> 37
THEMATIC STUDIES	
UNIV 35... Thematic Studies	(6)
BPS candidates must take six hours of Thematic Studies	
BLS candidates must take twelve hours of Thematic Studies	
	<hr/> 6-12

COORDINATED STUDY

A Coordinated Study is made up of a minimum of thirty upper division hours from two or more departments (30)

SPECIAL PROJECT

UNIV 4996 (9)

ELECTIVES

varies

TOTAL (minimum) 132

GROUP CONTRACTS

Bachelor of Liberal Studies

Black Studies

Black Studies re-examines history, society and the arts from a different perspective, giving recognition to the achievements of Black Americans and directing scholarship toward the totality of Black experience. In addition, it offers all students an intellectual framework for discerning and dealing with racism; informs and awakens all students to the cultural heritage of Black Americans to promote improved self-understanding regardless of race; and it provides Black students with positive models of leadership, personal development and social commitment.

Language and Mind

Language and Mind exists for persons with a deep love of language, who also wish to develop coordinated programs in one of these areas: psycholinguistics, cultural linguistics, philosophy of language, and language arts.

Women's Studies

Women's Studies focuses on women's contributions to and experiences in history, language and literature, sociology, philosophy, psychology, business, and the fine arts. Persons interested in Women's Studies will want to discover women's heritage and achievements, to understand women's experience, to reassess and redefine their goals in terms of changing sex roles; or to give special orientation to a liberal arts or social science degree program.

Bachelor of Professional Studies

Alcohol and Drug Abuse Services

Students in Alcohol and Drug Abuse Services will develop programs in one of these areas: Therapeutic Services, Social and Public Services, or Administrative Services. All will take a core of courses in alcohol and drug abuse, social, and administrative services, and will complete their programs by taking courses relevant to their concentrations. All students must have on-the-job experience, evaluated through internships, portfolio assessment, or both. Students in Therapeutic Services will be required to complete the minimum hours needed to make them eligible to sit for Tennessee State licensing as Alcohol and Drug Abuse Counselors.

Aviation Administration

Students in Aviation Administration concentrate in one of these three areas: Business and Management, Public Administration, or Computer and Information

Systems. In addition, thirty-four semester hours of academic credit are available for completion of three categories of FAA journeyman level instruction: Airport Traffic Control Tower, Air Route Control Center, and Flight Service Station. Credit by individual course is granted for Airways Facilities Journeyman and for instruction in all four categories beyond the journeyman level.

Biomedical Illustration

Students in Biomedical Illustration will take a common core of courses in art, photography, chemistry, and the life sciences. Students in Pre-Medical Illustration will also study figure structure, perspective, drawing, sculpture, medical illustration, etc. Students in Biomedical Photography will take further courses in photography, photographic materials and processes, biomedical photography, etc. Students in both Pre-Medical Illustration and in Biomedical Photography will complete internships in at least one setting in the Memphis area.

Commercial Aviation

Students in Commercial Aviation will concentrate either in General Aviation or in Airway Science. Students interested in General Aviation will develop programs in general management, personnel and industrial relations, publicity and public relations, technological or computer systems, and the like. Students in Airway Science will develop programs modeled upon the Airway Science Curriculum of the FAA. This curriculum has emphases in Airway Science Administration, Airway Computer Science, and Airway Electronic Systems.

Fire Administration and Fire Protection Technology

University College is the regional center for the Open Learning Fire Service Program, serving fire service personnel in Tennessee, Kentucky, Arkansas, Mississippi, Alabama, and Texas. OLFSP is a degree-completion program, offering upper division courses in Fire Administration and Fire Prevention Technology. These courses are designed for independent study. Freshman and sophomore courses, electives, and other courses related to the fire service are taken at a college near the student's residence.

Health Care Fields

Students pursuing concentrations in one of the Health Care Fields will take a core of courses selected from such areas as Human Growth and Development, Psychology of Personality, Social Psychology, Public Administration, Organization and Management, or Medical Sociology. Students interested in Health Care Administration will then take courses in administration and sound business practices. Students in Health Care Instruction will enroll in courses that increase their skills as teachers and their understanding of health education issues. Students in Community Health will take courses in public policy, community action, urban society, federal, state, and local government, etc.

Human Services

Students in Human Services will be expected to develop a philosophical orientation to the human condition; to enlarge their understanding of social structures, values and norms; to study human growth and development; and to become informed about social change and social and bureaucratic organization. Students in Human Services will take courses from such departments as Counseling and Personnel Services, Sociology and Social Work, Psychology, Management, and Special Education and Rehabilitation.

Nuclear Industrial Operations

In cooperation with the Center for Nuclear Studies, University College offers a Bachelor of Professional Studies in Nuclear Industrial Operations. The Coordinated Study consists of a Nuclear Reactor Fundamentals program of 28 semester hours and an Advanced Technical Program of 47 semester hours. Students may enroll in The Advanced Technical Program with permission of appropriate department chairmen.

The Coordinated Study:

- I. Nuclear Reactor Fundamentals
 - MATH 1200 Nuclear Reactor Mathematics
 - PHYS 2311 General Physics for Technicians I
 - PHYS 2312 General Physics for Technicians II
 - PHYS 2313 General Physics for Technicians III
 - PHYS 3710 Nuclear Physics for Reactor Applications
 - PHYS 4220 Reactor Physics
 - TECH 2411 Introduction to Instrumentation
 - CHEM 1010 Chemistry for Reactor Technicians
 - BIOL 2780 Human Radiation Biology
- II. Advanced Technical Program:
 - MATH 1300 Calculus for Nuclear Power Applications I
 - MATH 2300 Calculus for Nuclear Power Applications II
 - TECH 3413 Materials Structure and Properties
 - CHEM 3010 Corrosion Chemistry
 - PHYS 3703 Stress Mechanics
 - PHYS 3700 Thermodynamics for Nuclear Power Applications
 - CHEM 3031 Chemical Thermodynamics II
 - PHYS 3702 Nuclear Heat Mechanics
 - PHYS 3701 Physics of Fluids
 - TECH 3801 Electrical Generation and Transmission
 - PHYS 4221 Advanced Reactor Physics
 - TECH 3262 Computer Applications in Nuclear Power
 - PSYC 3599 Special Topics in Applied Psychology
 - UNIV 4380 Independent Study

Orthotics/Prosthetics and Related Fields

This degree is offered in cooperation with Shelby State Community College. Entering students will normally have completed an Associate of Applied Science Degree in Orthotics and/or Prosthetics before being admitted to this baccalaureate program. Once in it, however, students will concentrate in one of these areas: Patient Rehabilitation, Business Management, or Engineering Technology.

Services for the Aging

Students in Services for the Aging will take a core of courses in gerontology, adult development, and social policy for the aging. In addition, they will enroll in such other courses as will prepare them to become counselors, managers, teachers, activity directors, family life workers, personnel supervisors, and the like.

MINORS

Black Studies

The Minor: 15 semester hours, including 9 hours from core courses and 6 hours from electives.
 (a) Core Courses: ENGL 4371, HIST 4881, either COMM 2361 or POLS 4407
 (b) Electives: ANTH 3422; MUHL 4802; POLS 4212; SOCI 3401, 3422, 4420; COMM 3373, 4373, 4375, THEA 3461

Religion in Society

The University College offers an interdisciplinary minor in Religion in Society. This minor examines the role of religion in society as seen from the perspectives of culture and social organization; of history and philosophy; of art and literature. The minor is open to students majoring in any area in any of the undergraduate colleges or to special students who wish to enroll in order to take such a program.

The Minor: 18 semester hours of core courses and electives

- A. Required Core Courses
 - PHIL 3701 God and Man (3)
 - ANTH 4253 Anthropology of Religion (3)
 - SOCI 3860 Sociology of Religion (3)
- B. Additional Courses (select one course each from any three of the following four groups of courses):
 1. ANTH 3352 Anthropology of Asia
 - ANTH 4354 Archaeology of the Holy Land
 - POLS 3120 Religion and Politics
 2. PHIL 3411 Contemporary Moral Problems
 - PHIL 3451 Existentialism
 - PHIL 3511 Ethics
 - PHIL 3711 Philosophy of Religion
 - PHIL 3721 Oriental Philosophy
 3. HIST 3021 History of the Christian Church
 - HIST 3290 Traditional Asia
 - HIST 4361 History of the Byzantine Empire
 - HIST 4371 Early Middle Ages
 - HIST 4372 High Middle Ages
 - HIST 4390 Europe — Age of Reformation
 4. ENGL 4461 Bible as Literature
 - ART 4131 Early Christian and Byzantine Art
 - ART 4134 Romanesque and Gothic Art
 - MUSA 4001 Judeo-Christian Music
 - MUSA 4104 Sacred Music in History & Practice I
 - MUSA 4105 Sacred Music in History & Practice II

Women's Studies

The Minor: 18 semester hours, including 9 hours from core courses and 9 hours to be selected from the list given below.

- A. Core Courses
 - UNIV 3700 Women in American Society (6)
 - HIST 4851 History of Women in America (3)
- B. Additional Courses (select 9 hours):
 - HLTH 4204 Workshop in Sexuality Education
 - HMEC 4201 Preparation for Marriage
 - PSYC 4503 Psychology of Women
 - PSYC 3506 Human Sexuality
 - SOCI 3432 Sociology of Sex Roles
 - SOCI 3831 Marriage and the Family
 - ECON 4910 Women and Work
 - UNIV 4380 Independent Study (1-3)

EVALUATION

All members of the Contract/Advising Committee evaluate the student's performance, recognizing that each student enrolled in the University College must meet all University credit-hour and QPA requirements. The following methods are used to evaluate a student's performance: the traditional grading systems, Satisfactory/Unsatisfactory and Credit/No Credit options supplemented by written narrative evaluations, credit or placement by examination, Advanced Placement examinations for degree credit where these are available, and credit for validated learning from experience or non-traditional instruction.

Independent Departments and Programs

JOHN R. DILL, B.S., M.A., Ph.D.
Associate Vice President for Academic Affairs
Room 319, Administration Building

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
Urban Studies	†Urban Studies		Bachelor of Arts (B.A.)
**International Studies	†Latin American Studies		Bachelor of Arts (B.A.)
	International Relations	(1) American Foreign Policy (2) Western Europe (3) Latin America (4) Asia (5) Soviet (6) Sub-Saharan Africa (7) Middle East and North Africa	Bachelor of Arts (B.A.)
	African Studies		Certificate

**See also the listing for the Fogelman College of Business and Economics

†Collateral Major recommended.

Independent departments and programs are those which are not affiliated with a particular college in the University. The undergraduate independent departments or programs are Aerospace Studies (AFROTC), International Studies, Library Science, Military Science (Army ROTC), Naval Science, University Honors Program, and Urban Studies. Because they are not part of a particular college, there is no dean; therefore, the Associate Vice President for Academic Affairs performs the duties of a dean for these areas and for students enrolled in these programs.

INTERNATIONAL STUDIES

ASSOCIATE PROFESSOR
JAMES K. MUSKELLEY, *Director*

*Office of International Studies,
Winfield Dunn Building 310*

The Office of International Studies coordinates and assists in the development of the University's teaching, research and service activities in the international field. Undergraduate interdisciplinary programs for which the Office of International Studies has coordinating responsibility are those in Latin American and African studies, international relations and international business. General descriptions of the programs follow below and detailed information on them may be obtained from the Office of International Studies and program advisors.

This office is responsible for the conduct of Memphis State sponsored overseas study and work programs. Current information on these programs and on many others open to Memphis State students is available for reference in this

office, and students will be assisted in selecting programs which will best serve their educational needs. Participation in study-and work-abroad programs is not limited to those enrolled in the international studies programs, but is open to all qualified persons.

The Office of International Studies is also prepared to assist students who are interested in participating in overseas exchange programs sponsored by governmental and private organizations. Advanced graduate students engaged in foreign area and international research and study may obtain information about grant opportunities that may be available to them. In cooperation with the Office of Sponsored Programs, the Office of International Studies will give advice and assistance to those interested in applying for financial aid from non-University sources.

The office has responsibilities in a broad range of other international programs in which the University is currently engaged or is prepared to engage. Among these activities are the following: development and administration of interinstitutional consortia in the fields of international studies and programs, including overseas development and technical assistance; the offering of non-credit courses, orientation seminars and training programs for businesses and other organizations with international interests; maintenance of a "talent bank" file on University personnel possessing language skills and foreign area expertise; sponsorship of lectures and seminars on international topics of interest to the University and non-University communities; and dissemination of information about international programs of the University.

International Studies

AFRICAN STUDIES

Memphis State University's interdisciplinary program in African Studies, coordinated by the University's Office of International Studies, is open to students majoring in another interdisciplinary field or in a traditional discipline in any of the undergraduate colleges. Those who successfully complete the program will be awarded the Certificate in African Studies. The student's record will reflect the award of this certificate.

The African Studies certificate program is designed to serve the needs of students seeking a general education that emphasizes knowledge of this important world area, those who plan to teach in the elementary or secondary schools, and those who plan to do graduate work in an African or Afro-American field.

The candidate for the Certificate in African Studies will take courses in the fields of African anthropology, geography, history, and politics. There are no special language requirements for the program, but students planning to do graduate work in the field are urged to acquire a working knowledge of French or Portuguese. All students enrolled in the certificate program are encouraged to take advantage of opportunities for study or travel in Africa. Admission to the program is by consent of the African Studies advisor. The advisor will assist the student in planning his program in accordance with the requirements and his special interests. Requirements are listed below. The African Studies advisor is Dalvan M. Coger, Department of History.

AFRICAN STUDIES

The Certificate: 21 semester hours from the following courses: ANTH 3242, 3342, HIST 4281, 4282, 4283; POLS 3309; INTL 4301, 4302. At least one course must be taken within each of the three departmental areas (anthropology, history, and political science), and the interdisciplinary sequence course, INTL 4301-4302, is required of all candidates for the Certificate in African Studies.

INTERNATIONAL BUSINESS

A program leading to the degree of Bachelor of Business Administration with a major in International Business is offered with the Fogelman College of Business and Economics. Several departments of the College of Arts and Sciences participate in the program. The International Business advisor is John J. Reid, Department of Economics. For a description of the program and degree requirements, see the program descriptions for the Fogelman College of Business and Economics earlier in this section.

INTERNATIONAL RELATIONS

The International Relations program provides the opportunity to bring the knowledge of several traditional disciplines to bear upon a focal point of human relationships and problems which cross national and cultural boundaries. The program is designed to serve the student who seeks knowledge of the range of contemporary and possible future problems which confront international society and understanding of alternative national and cultural perspectives on solutions to those problems. The program also serves the needs of students planning a career in the Foreign Service or related agencies of the federal government and students preparing for employment abroad in the private sector, or in international organizations, private or public.

International Relations is offered as a major only. The program emphasis is on the course work in history, political science, economics, and geography, with contributions from other social science disciplines. Within the program, the student is required to concentrate a part of the work in the field of American foreign policy or in one of six areas of the world. Students are encouraged to pursue the study of a foreign language and to seek opportunities for travel and study abroad. The student's program should be planned in consultation with the International Relations advisor. Course requirements are listed below. The International Relations advisor is J. Rex Enoch, Department of Sociology.

INTERNATIONAL RELATIONS

The Major: 30 semester hours, including ECON 3580, 4340 and/or 4350 (6 hours of economics); POLS 2501, 4501, 4508, and 3505 or 4504; INTL 4601; and three courses, in at least two disciplines, from one of the following areas of concentration:

- (a) *American Foreign Policy:* ECON 3580; GEOG 4421; HIST 3803, 4811; POLS 2301, 3506, 4506; either POLS 3505 or 4504.
- (b) *Western Europe:* GEOG 4304; HIST 3506, 4145, 4461; POLS 3302.
- (c) *Latin America:* ANTH 3232, 3930 or SOCI 3930; GEOG 4324, 4325; HIST 3212, 4240, 4250; POLS 3306, 4306.
- (d) *Asia:* GEOG 4306; HIST 3291, 4292, 4294, 4295; POLS 3307, 4307.
- (e) *Soviet Union:* GEOG 4305; HIST 4162, 4163; POLS 4305, 4502, 4505.
- (f) *Sub-Saharan Africa:* ANTH 3242, 3342; HIST 4281, 4283.
- (g) *Middle East and North Africa:* HIST 4282, 3271; POLS 3309.

NOTE: The student electing the major in International Relations is advised to take the following courses to insure that he has an adequate background for the required courses in the major: ECON 1010, 2110; GEOG 2301, 2311; HIST 1301, 1302; INTL 1101, 1102.

LATIN AMERICAN STUDIES

The Latin American Studies program offers an interdisciplinary approach to the study of Spanish or Portuguese America. It is designed primarily to serve the needs of students who are planning a career in Latin America or who will work with public or private institutions in capacities that require a broadly based knowledge and understanding of Latin America. It is also structured to meet the needs of students who wish to prepare for graduate study in programs permitting a Latin American concentration, either within a traditional discipline or in an advanced interdisciplinary program. This program is centered on the Spanish and Portuguese languages and Latin American geography, history, literature, and politics. Appropriate courses in anthropology, art, economics, and sociology are also included in the program.

The student may elect Latin American studies as a major or minor. It is strongly recommended, but not required, that the student electing to major in this interdisciplinary field satisfy requirements for a collateral major in one of the traditional disciplines represented in the program. The student is advised that proficiency in spoken Spanish or Portuguese is very desirable for those contemplating a career in Latin America and to participate in Memphis State University study-abroad programs in that area. The student's program should be planned in consultation with the Latin American Studies advisor. Course requirements are listed below. The Latin American advisor is John A. Sobol, Department of Geography.

LATIN AMERICAN STUDIES

The Major: 24 semester hours, including 21 hours from the group of core courses and 3 hours from the group of electives listed below:

- (a) *Core Courses:* GEOG 4324, 4325; HIST 3211, 3212; INTL 4201, POLS 3306; SPAN 3511 or 3512.
- (b) *Elective Courses:* ANTH 3232, 3332, ART 4162, 4163; ECON 3580; HIST 4240, 4250; POLS 4306, 4503; SOCI 3930; SPAN 4561, 4562.

NOTE: The student must have a reading knowledge of Spanish (to the proficiency level expected upon completion of the second year college course) to satisfy the requirements of the major. It is recommended that he obtain a collateral major in one of the traditional disciplines represented in the program.

The Minor: 12 semester hours, including GEOG 4324 or 4325; HIST 3211, 3212; POLS 3306.

NOTE: The foreign language requirement for the minor is the same as for the major.

LIBRARY SCIENCE

PROFESSOR EVELYN G. CLEMENT,
Chairman

Room 101, John Willard Brister Library

The Department of Library Science offers no major in Library Service. For certification in Library Service, a student must complete requirements for endorsement in elementary education or a major endorsement in secondary education, in

addition to completing LIBS 4111, 4121, 4131, 4232, 4331, 4401; EDUC 3600.

For non-certification, a student whose major is in another college of the University will meet requirements for a minor in Library Service by completing the courses listed above.

URBAN STUDIES

ASSOCIATE PROFESSOR
MELVIN C. BARBER, *Coordinator*

Room 128, Old Brister Library

The Urban Studies Program is interdisciplinary in nature and deals with issues and problems in complex urban environments. The program focuses attention on "the city" — how it evolved, its structural and functional characteristics, and alternative directions for its growth. In addition to the development of a conceptual framework for the city, the courses in the Urban Studies Program stress participation in local research projects in the areas of housing, pollution, transportation, underemployment and urban life styles. An urban internship in a regional Mid-south public agency is both available and encouraged through the program.

The program's broad orientation and its attention to the causes and consequences of urban problems provides an excellent background for urban careers in organizations such as community action agencies, urban social service agencies, health planning agencies, and local and county government.

The Urban Studies program is offered through the cooperation of the departments of Anthropology, Economics, Geography, History, Political Science, and Sociology and Social Work. The above departments as well as other participating departments such as Management, Civil Engineering, Criminal Justice, and Theatre and Communication Arts provide the Urban Studies student with the opportunity for personal faculty advising in his area of interest as well as involvement in the faculty member's ongoing research projects in the surrounding area.

The student may elect Urban Studies as a major or minor. It is recommended, but not required, that the students majoring in Urban Studies choose a collateral major in one of the traditional disciplines represented in the program. The requirements for the major are listed below.

The Urban Studies major leads to a B.A. degree which is awarded through the College of Arts and Sciences. Degree requirements for the B.A. are listed with the program descriptions for the College of Arts and Sciences earlier in this section. The student's program should be planned in consultation with the Urban Studies Coordinator.

URBAN STUDIES

The Major: 33 semester hours (no more than 15 semester hours from any one department may apply toward the major) including

1. Urban Studies majors must take the Urban Studies Seminar 4001 and at least one three hour course from the following list of social science methods courses: ANTH 3225, GEOG 4531, POLS 3100, or SOCI 3322. A second course may be applied to the urban studies major if the student wishes.

2. Four courses from the following core:
ANTH 4411, ECON 4511, GEOG 4431, HIST 4871, POLS 3224, SOCI 4631.

3. Five courses from the following electives:
ANTH 4752, ECON 3210, 3810, 3811, 4750, GEOG 3451, 4201, 4442, HIST 4881, POLS 4221, 4224, 4225, SOCI 3610, 4420, 4620.

4. Three hours of approved internships from the following course numbers:
URBN 4995, ANTH 4985, GEOG 4700, HIST 4020, POLS 4230 or 4231, or SOCI 4912 can count toward the Urban Studies elective hours.

The Minor: 18 semester hours including URBN 4001 and 5 others listed above (in core or in elective sets).

AEROSPACE STUDIES

COLONEL DOUGLAS W. STOCKTON,
Professor of Aerospace Studies

Room 404, Jones Hall

The Department of Aerospace Studies provides a four-year program of instruction for all qualified U.S. citizens, male and female, divided into two phases, each of two years duration. The first, termed the General Military Course, offers instruction in the foundation of leadership and Aerospace-age citizenship. The second, termed the Professional Officer Course, builds upon these foundations in developing upperclassmen who are to become Air Force officers and serve on active duty upon graduation and commissioning. Students may apply for the two-year or four-year program, or they may enroll one year prior to applying for the two-year program.

Instruction in Aerospace Studies has been an important phase of the curriculum at Memphis State University since 1951. Active duty Air Force personnel, approved by the University President, are detailed by the Department of the Air Force to administer the instructional program. Air Force officers serve under appointment by the University as Professor or Assistant Professor of Aerospace Studies.

THE GENERAL MILITARY COURSE

The two-year (4 semesters) General Military Course consists of one hour a week of classroom instruction and one hour a week in Leadership Laboratory. Textbooks are furnished by the Air Force without charge. Air Force uniforms are furnished and must be properly worn and kept in good condition. A uniform deposit is required for all cadets at the time of registration. Cadets who successfully complete the General Military Course may apply for admission to the Professional Officer Course.

THE PROFESSIONAL OFFICER COURSE

The Professional Officer Course provides instruction and systematic training to selected eligible students who desire to qualify as officers in the United States Air Force while pursuing their academic studies at the University. Successful completion of the requirements for the

Professional Officer Course and for a baccalaureate degree leads to a commission in the United States Air Force as a Second Lieutenant. To be eligible for selection to the Professional Officer Course, a student must have at least two years remaining at the University (undergraduate, graduate, or a combination). Final selection is based on academic standing, leadership potential, percentile score on the Air Force Officer Qualifying Test, and physical qualifications. Senior male cadets who are enrolled in the pilot category will engage in a flying program consisting of 13 hours of flight instruction and 3 semester hours of Elementary Aeronautics (AERO 4413). All members of the Professional Officer Course receive a subsistence allowance of \$100.00 per month and are issued uniforms provided by the Air Force.

THE TWO-YEAR PROGRAM

All students who meet qualifying criteria, may apply for selection to the Professional Officer Course under the Two-Year Program if they are not in the Four-Year Program. Processing of applications for the Professional Officer Course begins in the Fall of each year. Application may be submitted through May 31. If selected, the student will attend a six-week field training program during the summer prior to entry into the Professional Officer Course. Graduates of the six-week field training are enrolled in the Professional Officer Course with the same status as cadets in the four-year program.

LEADERSHIP LABORATORY

This lab is designed around a microcosm of the U.S. Air Force. It gives the cadets the opportunity to develop their leadership potential while allowing the staff to make evaluations based on actual managerial situations.

AIR FORCE ROTC COLLEGE SCHOLARSHIP PROGRAM

Full scholarships which pay full tuition and fees, full book allowance, transportation to Memphis, and a tax free subsistence allowance of \$100.00 per month are available to entering freshmen and University students who are competitive academically and will enroll in the Air Force ROTC program. Details concerning qualifications and applications can be obtained from the Department of Aerospace Studies. NOTE: Several loan funds are also available to students enrolled in AFROTC. For more information, contact the department staff.

AFROTC students who accept a scholarship must agree to successfully complete at least one semester of college instruction in a major Indo-European or Asian language prior to commissioning. A *major* Indo-European or Asian language is one defined as such by the academic institution's foreign language department. Cadets may meet the foreign language requirement by completing a course or by demonstrating proficiency.

FIELD TRAINING

Offered during the summer months at selected Air Force bases throughout the United States. Students in the four-year program participate in four weeks of Field Training (AERO 3211), usually between their sophomore and junior years. Students applying for entry into the two-year program must successfully complete six weeks of Field Training (AERO 3212) prior to enrollment in the Professional Officer Course.

MINOR IN AEROSPACE STUDIES

Upon successful completion of 18 semester hours in Aerospace Studies, with a minimum grade of C, a cadet may apply for a minor in Aerospace Studies.

SUPPLEMENTAL COURSES PROGRAM

The AFROTC Supplemental Courses Program (SCP) exists to enhance the career utility and officer performance of persons commissioned through AFROTC. The program consists of required and recommended college/university-taught courses. All contract cadets must successfully complete the required supplemental courses in addition to all Aerospace Studies courses.

General Military Course (GMC): Contract cadets must successfully complete a course in English composition. Additionally, they should be encouraged to take a course in speech. Four-year scholarship cadets must satisfactorily complete the English composition course by the end of the GMC. GMC cadets receiving scholarships of less than four years duration will have two academic years to complete the English composition course. Failure to satisfactorily complete the required supplemental course in the specified period of time will result in termination of scholarship entitlements.

Non-scholarship four-year GMC cadets, two-year program applicants, and persons not required to complete the GMC need not take the GMC supplemental courses prior to POC entry. However, successful completion of GMC supplemental courses may enhance their chances for POC selection.

Professional Officer Course (POC): cadets must successfully complete a course in mathematical reasoning prior to commissioning. Ideally, this course should include the acquisition of a specific skill, for example, statistics, computer science, calculus, etc.

UNIVERSITY HONORS PROGRAM

PROFESSOR JOSEPH R. RILEY, *Director*
Room 128, Old Brister Library

What the Honors Program Is

The Honors Program has been created to provide exceptional educational

opportunities for exceptionally able students. It is expressly intended to nurture the highly motivated, independent individual who seeks a stimulating environment appropriate to the student's unusual potential. The program offers a series of specially designed honors sections and courses, from which students may choose those courses which best suit their own interests and needs. Upon the successful completion of a minimum of 12 lower-division hours in honors courses, including the 1-hour Honors Forum (UNHP 1100), the honors student is qualified to receive an Honors Certificate and to enroll in an upper-division honors track. Students who do not choose to pursue certification in honors may still enroll in upper-division honors tracks upon successful completion of 6 lower-division hours in honors courses. In order to graduate with honors, a student must complete successfully a minimum of 18 semester hours of honors work, at least 12 hours of which must be upper-division courses offered as part of an approved upper-division honors track. Depending upon which honors track is chosen, a student who completes the Honors Program can be graduated with department, college, and/or University honors. For example, a student might graduate "with honors in English (or economics, or history, etc.)," "with honors in Education, "with University honors," or with combinations of these.

The University Honors Program is governed by the Honors Council, a committee composed of the Director of the Honors Program, the Assistant Director of the Honors Program, six faculty members chosen by the Academic Senate, and two honors students elected by the Honors Student Association. The Program is housed in Old Brister Library, Rooms 128-130, where the office of the Director is located; as well as a seminar-conference room and an honors lounge, open to all students who are active in the Honors Program.

Admission to the Program

Incoming freshmen who score at least 26 on the ACT, or its equivalent on other tests, are invited to participate. Transfer students or students previously enrolled at Memphis State University are eligible for the program if they have an overall grade point average of 3.0 for freshmen and sophomores and of 3.25 for upper-division students. Those who do not qualify in one of these ways will be considered upon direct application or receipt by the Director of a recommendation from high school or college faculty.

Curriculum and Requirements

Description of a typical honors plan is as follows:

Lower Division: Honors students at this level take specially designated sections of freshman and sophomore courses offered by departments throughout the University. Enrollment is limited to fifteen

honors students, and these sections are taught by specially selected honors faculty. Qualified students may take lower-division honors courses simply because they prefer them over regular classes, and they may take as few or as many as they wish. If students choose to qualify for an Honors Certificate, however, they must meet the following requirements: (1) complete a minimum of 12 semester hours in lower-division honors classes, of which no more than 3 hours may be earned by contracting for honors; (2) maintain a QPA of 3.25 overall and make at least a B in the honors courses offered to fulfill the 12-hour requirement for honors certification; (3) complete successfully the University Honors Program course entitled *The Honors Forum*, for one hour of credit. Students who receive an Honors Certificate are automatically qualified to enter an upper-division honors track (departmental, college or university). Students who do not seek a certificate may qualify for an upper-division honors track by taking at least 6 lower-division honors hours with a minimum grade of B and, for most advanced programs, a minimum QPA of 3.25.

Upper Division: After the basic courses in honors have been completed, honors participants must opt for honors at the department, college or university level. Regardless of the individual's choice to pursue department or college honors (and regardless also of the availability of such programs in his chosen field), he may continue toward graduation with University honors. This plan consists at the upper division of four honors courses in which students from across the University may participate. Topics are interdisciplinary in nature and vary from semester to semester. An honors thesis or project may be substituted for one of these courses. Descriptions of college and departmental programs are available in the appropriate college or department, or in the office of the University Honors Program.

Requirements and Standards

During the freshman and sophomore years the honors participant must maintain an overall QPA of at least 3.0 to remain in good standing in the program; the minimum QPA for continuing at the junior and senior levels is 3.25. There is provision for a one-semester probationary period before a participant is discontinued. A minimum grade of B is required in each honors course in order for it to count toward fulfilling the honors course requirement, but regular credit for the course will be earned if the grade is lower than a B.

MILITARY SCIENCE

MAJOR DAVID C. DE GRANGE,
Professor of Military Science

Room 110, Building 160

The Department of Military Science provides a four year program of instruction

designed to provide qualified college men and women with practical experience in the art of organizing, motivating and leading others. The program is divided into two courses each of two years duration. The first, called the Basic Course, offers instruction in leadership skills, soldiering skills, and the role and use of armed forces. The second, called the Advanced Course, builds on the Basic Course, offers practical leadership experience, and prepares the student for commissioning as an Army officer. Students may apply for the four-year program, which can be completed in three years with department permission, or may apply for a two-year program.

Department faculty and staff are active duty Army personnel detailed by Department of the Army and approved by the University President. The Army officers are appointed by the University as Professor or Assistant Professor of Military Science.

THE BASIC COURSE

The Basic Course, two years in duration, consists of two semesters of one hour per week of classroom instruction and two semesters of two hours per week of classroom instruction. Courses to be taken are comprised of two required courses, Army 1110 and 2110, and two elective courses of student's choice. The sequence in which these courses are to be taken is not structured. All textbooks are furnished, without charge, by the department.

All offered courses count as elective credit toward the total university required hours for a degree. Physical Education credit is granted for the two required courses.

The Basic Course is designed to be entered into as an incoming Freshman. All other students are still eligible to enter and may compress the Basic Course requirements into no less than one year, with department permission. There is NO MILITARY OBLIGATION for enrolling in the Basic Course, and students are not required to wear uniforms or attend leadership laboratory.

Students who successfully complete the Basic Course may apply for entry into the Advanced Course.

THE ADVANCED COURSE

The Advanced Course prepares qualified, selected male and female students for commissioning as an Army officer while they continue to pursue academic degrees. Upon graduation, students may then serve in the Regular Army, Army Reserve, or Army National Guard in a variety of career fields.

To be eligible for the Advanced Course, the student must have completed the Basic Course or equivalent, (see 2-year program), be enrolled with the University in a full-time status, have at least two years remaining at the University (undergraduate or graduate), and be a U.S. citizen. Final selection is based on demonstrated academic performance, leadership

potential, a qualifying score on the Officer Selection Battery of Tests, and physical qualifications.

The Advanced Course is two years in duration. During each of four semesters, the student attends three hours per week of classroom instruction and two hours per week of leadership laboratory. It is comprised of Army 3110, 3120, 4110, and 4120, in sequence. All students receive a monthly subsistence allowance of \$100.00, tax-free, while enrolled in classes. All textbooks, uniforms, and equipment are furnished, without charge, by the department.

Students are given the opportunity to develop their leadership skills through the leadership laboratory, field training, and the Advanced Camp. The leadership laboratory is designed around a cadet structure which parallels a U.S. Army unit. Field training exercises are conducted over a weekend and are an extension of the laboratory. Students are also required to attend a six week Advanced Camp during the summer between their two years in the Advanced Course. It is held at Fort Riley, Kansas, a U.S. Army post. Students are paid for the six weeks at the rate of one-half the pay of a Second Lieutenant and are furnished quarters and rations as well as transportation to and from, or a mileage allowance for use of their own automobile.

All required courses count as elective credit toward the total university required hours for a degree.

THE TWO-YEAR PROGRAM

The Two-Year Program provides the opportunity to those students who did not enroll in the Four-Year Program to enroll in the Advanced Course. There are three methods for students to receive placement credit for the Basic Course and enter directly into the Advanced Course.

Students, who meet qualifying criteria, may receive credit for the Basic Course by attending the six-week Basic Camp at Fort Knox, Kentucky, during the summer. **NO MILITARY OBLIGATION** is incurred by the student by attending the Basic Camp. Students are paid for the six weeks at the rate of one-half the pay of a Second Lieutenant and are furnished quarters and rations as well as transportation to and from, or a mileage allowance for use of their own automobile. Successful completion of the Basic Camp will make the student eligible to enter the Advanced Course. Interested students should contact the Department of Military Science anytime during the academic year preceding the summer they desire to attend the camp.

Students who have completed Army Basic Combat Training and Advanced Individual Training or have completed a minimum of three years of Army Junior ROTC in high school may be granted credit for the Basic Course by the Professor of Military Science and would then be eligible for entry into the Advanced Course, provided all other requirements

are met. These students, as well as Basic Camp graduates, selected for enrollment in the Advanced Course are enrolled with the same status as cadets in the Four-Year Program.

SCHOLARSHIP PROGRAM

Scholarships which pay full tuition, maintenance fee and other fees, a book allowance, and a tax-free subsistence allowance of \$100.00 per month are available to University Freshmen and Sophomores who are competitive academically and will enroll in the Army ROTC program. Applications are taken from December to February each academic year. Details concerning qualifications can be obtained from the Department of Military Science.

SIMULTANEOUS MEMBERSHIP PROGRAM

The Simultaneous Membership Program is a voluntary program under which qualified cadets in the Advanced Course may concurrently join an Army Reserve or Army National Guard unit. The program is designed to provide the cadet with additional opportunities for leadership development and, at the same time, provide him or her with practical unit experience as a Second Lieutenant. The cadet serves in an officer-trainee capacity and participates in regular unit drills held one weekend per month and two weeks per summer. The cadet is paid for all drill at the rate of a sergeant. This pay is in addition to the regular monthly subsistence for Army ROTC cadets. Details concerning qualifications and information on availability of allocations can be obtained from the Department of Military Science.

PROFESSIONAL MILITARY EDUCATION

Professional Military Education is a component of the academic preparation for students desiring to pursue a commission as an Army officer. It consists of two essential parts, a baccalaureate degree and completion of university-taught, undergraduate courses from each of five designated fields of study. The fields of study are written communications, human behavior, military history, management, and national security studies. This is a requirement for students enrolled in the Advanced Course only, though applicable courses taken during enrollment in the Basic Course or prior to enrollment may still meet the requirement. Related required and elective courses taken for university degree requirements may also satisfy the requirement. Some of the Professional Military Education required courses may be waived by the Professor of Military Science if they would interfere with a student's required curriculum for award of a particular University degree.

SPONSORED ACTIVITIES

The Department of Military Science sponsors the following voluntary extra-

curricular activities to provide students in both the Basic Course and Advanced Course with additional opportunities to develop leadership in conjunction with extending the students' knowledge of military skills:

1. The Army ROTC Rifle Team—Members develop skill in target rifle marksmanship. Selected members represent Memphis State University Army ROTC in small bore rifle competition with ROTC teams of other colleges and universities. The team is open to individuals enrolled in any Military Science course.

2. The Army ROTC Tiger Drill Team—Members develop skill in standard and exhibition drill and military ceremonies. The team provides color guards at Memphis State University athletic events and drills competitively against ROTC teams of other colleges and universities. The team is open to individuals enrolled in any Military Science course.

3. M.S.U. Ranger Platoon — Members develop skills associated with patrolling, mountaineering, survival training, and other similar activities. The Ranger Platoon is an adventure-type unit under the direction of Army ROTC Advanced Course cadets. Membership is open to all interested full-time students.

NAVAL SCIENCE

CAPTAIN FRANCIS M. DRESSEN,
Professor of Naval Science

Room 101A, Art Annex

The Department of Naval Science provides a four-year program of instruction leading to a commission as an officer in the regular U.S. Navy or Marine Corps as well as Naval Reserve or Marine Corps Reserve. The program is also known as the Naval Reserve Officer Training Corps (NROTC) and is voluntary in that students may withdraw from the program at any time during the freshman year. At the start of the sophomore year, scholarship NROTC students enter into an agreement with the Department of the Navy that specifies active duty service after college work is completed.

REQUIREMENTS

The general requirements for enrollment in the NROTC College Program are:

1. be a citizen of the United States
2. be physically qualified
3. possess personal characteristics and potential relevant for naval officer
4. not be a conscientious objector
5. meet other requirements as specified by the U.S. Navy

THE FOUR YEAR PROGRAM

The four year program is geared to students who enter the NROTC program as freshmen. Students will be introduced to the field of naval science which encompasses a broad variety of subjects ranging from basic seamanship to fleet operations. Topics covered during the first half of the four year program include principles of

naval ships systems, naval weaponry, seapower, and maritime affairs. The second half (junior and senior years) is devoted to navigation and naval operations, naval leadership and management. In addition to specified courses, students will also meet with their NROTC unit for orientation experiences to service life. Six week summer training cruises are also part of the naval science program.

THE TWO YEAR PROGRAM

The two-year program is for interested students who want to participate in NROTC in their junior and senior years. Students should apply for enrollment

through the Professor of Naval Science before the spring semester of the sophomore year (initial application in spring, 1985). If accepted into the two-year program, students will attend the six-week Naval Science Institute at Newport, Rhode Island, during the summer between the sophomore and junior years. Upon return to campus, students will be enrolled in the NROTC program and participate as regular students.

FINANCIAL BENEFITS AND NROTC SCHOLARSHIPS

All NROTC students receive required uniforms and naval science textbooks

when they begin the program as freshmen. In their junior year as college program or two year program students, they will also receive a tax-free subsistence allowance of \$100 a month. Four year scholarship students will also receive tuition, cost of textbooks, instructional fees and \$100 a month. Students will receive pay while participating in summer training experiences and be reimbursed for associated travel. Students interested in the Navy ROTC programs should contact the Professor of Naval Science.

The School of Nursing

JOAN DODSON, R.M., M.Ed., M.S., *Chairman*
Room 316, Manning Hall

ACADEMIC PROGRAMS

Department	Major	Concentration Within Major	Degree Offered
*	Nursing		Bachelor of Science in Nursing (B.S.N.)

*The College is not comprised of departments

PURPOSE

The School of Nursing at Memphis State University provides a unique educational opportunity for registered nurses who are graduates of a diploma or associate degree program in nursing to earn a Bachelor of Science in Nursing. This program was developed in response to the educational needs of registered nurses in the West Tennessee area. The specific purposes of the School of Nursing are as follows:

1. Provide a route to professional practice through providing a curriculum leading to a Bachelor of Science in Nursing.
2. Provide an upper division course of study which is flexible and responsive to the individual learner's needs.
3. Broaden the career opportunities and goals of registered nurses through increasing their competencies in conceptual, functional, and human skills.
4. Prepare nurses who demonstrate skill in problem-solving and analytical competence in the care of clients in a variety of settings.
5. Develop leadership skills which enable the registered nurse to more effectively work within the health care system.
6. Prepare for career mobility by providing basic preparation for graduate study.

ORGANIZATION

The School of Nursing is organized as one unit under the leadership of a dean. Nursing courses are offered only at the upper division level. All courses taken to obtain an associate degree or diploma in nursing, in addition to all lower division requirements, are considered to be the lower two years of the nursing curriculum.

The School of Nursing is fully accredited by the National League for Nursing.

The curriculum is an integrated program which focuses on preparing nurses to provide a comprehensive service of assessing, promoting and maintaining the health of the individual as well as groups. A comprehensive approach to health care is emphasized through the utilization of a variety of health care settings which are available in Memphis and the surrounding community.

The faculty of the School of Nursing represents all clinical areas of nursing practice and a variety of experiences and interests. They reflect this diversity in their teaching, practice and research and thus are well qualified, in addition to

academic credentials, to function as facilitators of learning.

ADMISSION

In addition to meeting all admission or readmission requirements of the University, the following requirements must also be met:

1. Graduation from an approved associate degree or diploma program in nursing.
2. Declaration of Nursing as a major.
3. Current licensure as a registered nurse.
4. A cumulative grade point average of 2.00 or higher.
5. Interview with School of Nursing advisor and filing of Intent Form.

ADVISING

Students who declare nursing as their major should seek academic advisement in the School of Nursing, even though they may be enrolling in lower division requirements. A faculty advisor will be assigned to each student when the Intent Form is filed with the School.

LOANS AND SCHOLARSHIPS

Students are encouraged to inquire

about financial assistance through the Student Financial Aid Office. Some scholarships are also available through the School of Nursing for students enrolled in clinical courses. Applications for scholarships are available in the School of Nursing office.

RESIDENCY

University residence requirements are explained in detail in the *Graduation from the University* section of this catalog. Note that students transferring from a community or junior college must complete a minimum of sixty semester hours in an accredited senior institution.

DEGREE REQUIREMENTS

A minimum of 133 semester hours is required for the Bachelor of Science Degree in Nursing. There is a minimum of 85 lower division semester hours required along with 48 semester hours at the upper division level. Thirty-three of the upper division hours are credits earned in nursing courses.

Lower Division Requirements

English: ENGL *1101, *1102 (with minimum grade of C) and two of the following: 2101, 2102, 2103, 2104, 2105, 2106.

History: HIST 2601, 2602.

Science: BIOL *1731, *1732, *1400; CHEM *1051, *1052 (with minimum grade of C and within the last 15 years or current validation by testing).

Physical Education: two semesters of activity courses.

Mathematics: MATH *1181 or higher.

Nursing: *30 semester hours.

Humanities: 3 semester hours from art, foreign languages, music, philosophy, or theatre and communication arts.

Behavioral Science: 9 semester hours as follows: EDPS *2111, PSYC *1101, ANTH *1200 or SOCI *1111; developmental psychology or human growth and development are crucial to program and must show on transcript.

*Prerequisite courses which must be completed prior to enrolling in Clinical Nursing I, 3102.

Regulations: If fifteen years has lapsed since credit was earned in Biology 1731 and 1732 (Anatomy and Physiology), Biology 1400 (Microbiology), and Chemistry 1051 and 1052 or Chemistry 1111 and 1112, the content is considered outdated, and students are required to repeat these courses or validate credits by examination. The NLN tests in Anatomy and Physiology, Chemistry and Microbiology are used to measure current knowledge in these fields. A score of fifty percentile or higher is required.

Upper Division Requirements

The following requirements must also be met for graduation:

Nursing: NURS 3000, 3002, 3101, 3102, 3200, 3400, 4000, 4100, 4200.

Research/Statistics: EORS 4541, 4542.

Social Science Elective: 3 semester hours (any upper division course in International Studies, Sociology, Anthropology, Psychology, Geography, Political Science, Economics, Criminal Justice, History, Philosophy, Journalism, or Communications).

Biology: BIOL 3440.

Elective: 3 semester hours (any upper division course).

Regulations: Students may enroll in the non-clinical nursing courses and other upper division classes if it is considered beneficial to the student's

progress. However, before enrolling in the first clinical nursing course, Nursing 3102, the student must make a formal application and demonstrate the following:

1. Score in the fiftieth percentile (50%) or higher on the NLN Comprehensive Nursing Achievement Test.
2. Completion of all prerequisite courses.
3. Evidence of current licensure, liability insurance, and statement of good health.

The following represents a common curriculum plan for the upper division levels:

JUNIOR YEAR

NURS 3102	(3)	NURS 3200	(6)
*NURS 3002	(3)	*NURS 3000	(3)
*NURS 3101	(3)	*Social Science	
*BIOL 3440	(3)	ELECTIVE	(3)
	12		12

SENIOR YEAR

NURS 4000	(6)	NURS 4200	(6)
NURS 4100	(3)	EORS 4542	(3)
*EDRS 4541	(3)	*ELECTIVE	(3)
	12		12

*Part-time students may complete these prior to beginning clinical courses.

CREDIT BY EXAM

Credit for some of the upper division nursing courses may be earned through credit by examination. Other methods of earning credit are explained in detail in the Academic Regulations section of this catalog.

6. DESCRIPTION OF COURSES

The section which follows contains a listing of all departments in the University by the college in which they are located and a description of all course offerings. The official course title appears in boldface type following the course number. The figures in parentheses after the description of a course denote the number of semester hours of credit for that course. If the credit is variable, to be fixed in consultation with the instructor, that fact is indicated by the minimum and maximum credit, as BIOL 4000 (2-4). If another course number in parenthesis follows the credit hours, it is the former number for the same course. Credit may not be received for both the former number and

the current number of the same course. At the end of many course descriptions, prerequisites and/or corequisites are listed. Students are responsible for meeting the stated prerequisites prior to enrolling for the course.

Courses are numbered according to the following system:

1000-1999	Courses primarily for freshmen
2000-2999	Courses primarily for sophomores
3000-3999	Courses primarily for juniors
4000-4999	Courses primarily for seniors and for which graduate credit is not offered. (There is sometimes a corresponding 6000 number for which graduate credit is offered to graduate students.)

1000-2000 level courses are lower division courses, 3000-4000 level courses

are upper division courses. Course numbers have no reference to the semester in which the courses are taught.

The Schedule of Classes is published a few weeks prior to the opening of each semester and The Summer Session. It contains a listing of the specific courses to be offered, with the time, place, and instructor in charge of each section. It also contains special announcements concerning registration procedures and courses which may have been added since the publication of the *Catalog*. Copies are available in the office of the Associate Dean of Admissions and Records (Records).

THE COLLEGE OF ARTS AND SCIENCES

ANTHROPOLOGY

PROFESSOR

THOMAS W. COLLINS, *Chairman*

Room 122, Clement Humanities Building

EO10 ANTHROPOLOGY (ANTH)

1100. Man's Place in Nature. (3). Man's place in nature, human origins, fossil record from archaeological excavations, biological aspects of race.

1200. Man and Culture. (3). Origin and development of human culture. Social relations, language, government, religion and ritual, and problems of developing nations or minority groups in modern world.

1300. Introduction to Archeology. (3). Description of archaeological evidence for development of human culture from its earliest beginnings to rise of civilizations. Introduction to principles and methods of archaeology.

1400. Urban Anthropology of Contemporary America. (3). Anthropological interpretation of diverse and changing life patterns in American urban society. Attention to cross-cultural analysis of divergent settlement patterns, kinship networks and political, religious and economic systems.

3035. Indians of Tennessee and Adjacent Areas. (3). Archaeology and ethnology of Southeast; intensive study of various Indian cultures of Tennessee and bordering states.

3111. Human Paleontology. (3). Hominid fossil record starting with primate developments; human evolution; human osteology.

3200. Peoples and Cultures of the World. (3). (Same as GEOG 3200). Major ethnographic areas and selected cultures of the world.

3225. Qualitative Methods of Field Research. (3). Various qualitative methods of anthropological research. Application in collecting life histories and writing ethnographic descriptions of contemporary societies.

3231. Ethnology of North America. (3). Description and distribution of aboriginal culture types of North America north of Mexico; comparisons and interrelationships during preand post-contact periods.

3232. Ethnology of Latin America. (3). Description and distribution of peoples and cultures of South America and Mesoamerica; comparisons and interrelationships during preand post-contact periods.

3242. Ethnology of Africa. (3). Description and distribution of peoples and cultures of Africa; comparisons and interrelationships during preand post-contact periods.

3272. Ethnology of Oceania. (3). Description of peoples and cultures of Oceania (including Australia); comparisons and interrelationships during preand post-contact periods.

3321. Archeological Field Techniques I. (1-3). Experience in field excavations; preparation of specimens, use of survey instruments, photographing and keeping archaeological records, map making of small ground areas. Hours individually arranged. May be repeated for a maximum of 3 hours credit. PREREQUISITE: permission of instructor.

3322. Archeological Field Techniques II. (1-3). May be repeated for a maximum of 3 hours credit. PREREQUISITE: permission of instructor.

3331. Archeology of North America. (3). Description and distribution of prehistoric cultural remains in North America north of Mexico. Major regional sequences, extending from the earliest evidences of human occupation until historic times.

3332. Archeology of Latin America. (3). Description and distribution of prehistoric cultural remains in South America and Mesoamerica, with emphasis on Mexico and Peru.

3342. Archeology of Africa. (3). Description and distribution of archaeological remains in Africa, major regional sequences, extending from earliest evidences of human occupation until historic times. Emphasis on cultural achievements of pre-colonial Africa.

3351. Archeology of Europe. (3). Development of the various European civilizations and their influence and interrelationships with other cultures through Europe and Eurasia.

3352. Archeology of Asia. (3). Description and distribution of prehistoric cultural remains in Asia, major regional sequences, from earliest evidences of human occupation until historic times.

3422. Social and Ethnic Minorities. (3). (Same as SOCI 3422). Social and ethnic minorities in United States and elsewhere; focus on differences in cultural backgrounds, social relationships with larger society; social, educational, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities.

3611. Linguistic Anthropology. (3). Nature and usefulness of symbols, mechanisms by which they are communicated, relation of symbolic systems to thought and culture, comparative techniques used to reconstruct prehistoric languages.

3711. Cultural Development and the Growth of Technology. (3). Anthropological survey of development of technology and its impact on organization of industry and work from prehistoric through post-industrial societies. Consideration of such current

issues as public control of technology, labor market segmentation, and quality of working life, in context of comparative analysis of both pre-industrial and industrial societies.

4051-6051. Anthropology and Education. (3). (Same as EDFD 4051). Advanced study of cultural transmission process with emphasis on identifying differing behavioral, cognitive and learning styles of various ethnic groups within American society and selected third world countries. Encounters of U.S. subcultural groups with public education system. PREREQUISITE: permission of instructor.

4064-6064. The Rise of Anthropological Thought. (3). (3065). Rise of anthropology as a science. Emphasis on anthropological thinking and theories of 19th and early 20th century.

4065-6065. Contemporary Anthropological Theory. (3). Contemporary growth of theories and methods in anthropology.

4111-6111. Human Adaptations. (3). Human populations and their variability; examination of human adaptations in locomotion and manipulation, facial structure, brain and language, and reproduction; comparisons to anatomy, physiology, and behavior of other primates.

4252-6252. Economic Anthropology. (3). Comparative analysis of economic systems and their functional relationships to other cultural institutions; production, distribution, and consumption; concepts of wealth, value, property, and ownership.

4253-6253. Anthropology of Religion. (3). Comparative analysis of religious systems and their functional relationships to other cultural institutions; inter-relations of myth, magic, and ritual; types of religious institutions and religious practitioners.

4254-6254. Cultural Change. (3). Internal and external factors causing change; role of various change agents; cultural changes associated with urbanization, industrialization and modernization; theories of cultural evolution.

4311-6311. Archaeological Theory and Method. (3). History of archaeology and development of conceptual framework for archaeological data collection and interpretation; current theories and methods including the use of allied specialists.

4321-6321. Archeological Field Control. (3). Methods of dealing with archaeological field problems; individual instruction in collection, recording, and field analysis of both historic and prehistoric archaeological data.

4325-6325. Archaeological Field Techniques and Restoration. (3). Individual instruction in dealing with archaeological field problems and methods of modern conservation and restoration techniques. PREREQUISITE: permission of the instructor.

4351-6351. Evolution of Civilization. (3). Comparative investigation of origins of civilization in Old and New Worlds. Development and study of models to explain cultural, social, political, and other changes that lead to and define civilization.

4354-6354. Archaeology of the Holy Land. (3). Survey of archaeological remains in Holy Land from Stone Age to early Christian Era.

4370-6370. Historic Archaeology. (3). Review of contributions of archaeologists to historical research. Methods and techniques of archaeologists as required and modified by excavation and interpretation of historic materials. Allied specialties unique to Historic Archaeology including documentary investigations and conservation and restoration of existing structures.

4380-6380. Museology. (3). (Same as ART 4380). History and development of museums; mandate and variety of institutions; significant research facilities; historical and contemporary collections, and the educational roles of museums in contemporary society.

4381. Archeological Laboratory and Research Techniques. (1-3). Coverage of basic archaeological laboratory and research techniques, including processing, cataloging, storage of specimens, and analysis of small body of archaeological data on individual basis. May be repeated for credit when topic varies. No more than 6 hours credit may be counted toward major requirements in anthropology. PREREQUISITE: permission of instructor.

001 GENERAL ARCHAEOLOGICAL LABORATORY
002 HUMAN OSTEOLOGY
003 CONSERVATION AND RESTORATION

4382-6382. Museum Operation. (3). (Same as ART 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records.

4411-6411. Urban Anthropology. (3). Anthropological studies of pre-industrial and industrial cities. Urbanization, movements of social transformation and other processes of adjustment to urban milieu. Urban slums, ethnic enclaves and housing developments in cross-cultural perspective. Urban kinship and social organization. Urban community development. Urban research techniques.

4420-6420. American Folklore. (3). Selected genres of American folklore, including folk religion and belief, folk medicine, folksong and music, narrative and humor (jokes and riddles). Comparisons to other cultures. Emphasis on role of folklore in maintenance of tradition, in social change, and in concept of culture.

4511-6511. Medical Anthropology. (3). Cross-cultural analysis of bio-behavioral components of infectious, nutritional, genetic, chronic and psychiatric diseases. Individual and cultural reactions to medical care, professionals and health care delivery systems.

4521-6521. Folk Medicine in the U.S. (3). Medical alternatives to standard health care system. Concepts of illness associated with such practices as use of medicinal plants, faith healing, chiropractic. Clinical effectiveness of folk herbal medicine and psychotherapy. Health professional's role in caring for persons with different perceptions of health and disease emphasized.

4541-6541. Nutritional Anthropology. (3). Human nutrition in cross cultural perspective. Basic nutritional requirements. Interrelations of dietary behavior with resource availability and with cultural attitudes regarding nutritive and health values for foods. Dietary aspects of acculturation and culture change. Methodology in assessment of nutritional status and nutritional insufficiencies. Exemplary case studies.

4751-6751. Culture and Personality. (3). Comparison of factors involved in analysis of personality as contrasted to culture; interaction of these factors; problems of studying personality cross culturally.

4752-6752. Applied Anthropology. (3). Application of anthropological knowledge and techniques to contemporary problems in government, industry, public health, community development, and urbanization.

4975. Directed Individual Readings. (1-4). Intensive guided survey of anthropological and related literature dealing with topics selected by advanced students and accepted by staff. Compilation, synthesis, and evaluation of published data; preparation for students considering anthropology as a profession. PREREQUISITE: permission of chairman and designated staff.

4985. Directed Individual Research. (1-3). Intensive guided study of original data, in areas selected by advanced students and accepted by staff. Collection and/or processing of data in physical anthropology, ethnology, applied and urban anthropology, archaeology, and linguistics; description, classification, analysis, and synthesis. Preparation for publication. PREREQUISITE: permission of chairman and designated staff.

4990. Special Topics in Anthropology. (3). Selected topics of current interest in areas of anthropology not otherwise included in the curriculum. May be repeated for credit when topic varies.

001 NEIGHBORHOOD STUDIES IN MEMPHIS
002 EXPERIMENTAL ARCHAEOLOGY
003 INDUSTRIAL ANTHROPOLOGY

4995. Independent Study in Anthropology. (3). Investigation of contemporary issues in anthropology; experience with application of anthropological principles in selected settings, e.g., in Greater Memphis area; may be offered in sections dealing with different topics.

BIOLOGY

PROFESSOR JAMES F. PAYNE, *Chairman*

201B, Life Science Building

ADVANCED PLACEMENT

Beginning freshmen who have completed an advanced biology course in high school may apply to the chairman of the Department of Biology, during the semester preceding enrollment, for advanced placement. A supplementary departmental test is required in most cases.

EO60 BIOLOGY (BIOL)

1001. Introduction to Biology. (3). Survey of biology; emphasis on animal kingdom; for non-science majors. Credit not acceptable for biology major or in related pre-professional curricula. Credit not allowed for both BIOL 1001 and 1112. Two lecture, two laboratory hours per week.

1002. Introduction to Biology. (3). Continuation of BIOL 1001, with emphasis on plant kingdom. Credit not acceptable for biology major or in pre-professional curricula. Credit not allowed for both BIOL 1002 and 1112. Two lecture, two laboratory hours per week.

1110. Introduction to Toxicology. (2). Survey of field of toxicology; interdisciplinary aspects.

1111. General Biology I. (4). Unifying principles of biology with emphasis on cell structure, cell function, heredity, development and evolution. Three lecture, two laboratory hours per week.

1112. General Biology II. (4). Continuation of BIOL 1111 with emphasis on origin and diversity of life; structure, function, and ecology of organisms. Three lecture, two laboratory hours per week.

1400. Microbiology. (4). To meet requirements of student nurses. Three lecture, two laboratory hours per week.

1631. Human Anatomy and Physiology. (3). Structure and function of human organism, primarily for majors in Department of Health, Physical Education, and Recreation. Two lecture, two laboratory hours per week.

1632. Human Anatomy and Physiology. (3). Continuation of BIOL 1631, primarily for majors in Department of Health, Physical Education, and Recreation. Two lecture, two laboratory hours per week. PREREQUISITE: BIOL 1631 or equivalent.

1731. Anatomy and Physiology. (4). Detailed study of structure and functions of human organism. Three lecture, two laboratory hours per week.

1732. Anatomy and Physiology. (4). Continuation of BIOL 1731. *Three lecture, two laboratory hours per week.* PREREQUISITE: BIOL 1731 or equivalent.

2000. Fundamental Concepts of Biology. (3). Expansion and elaboration on basic biological concepts introduced in BIOL 1200 and 1600. Includes cell structure, cell function, reproduction, genetics, evolution, and ecology. Both unifying and comparative in nature. Required of all majors in biology. PREREQUISITES: BIOL 1200 and 1600 or equivalents and COREQUISITE: CHEM 1112 or equivalent.

2001. Elements of Biology. (3). Basic concepts of animal and plant life. (For students in College of Education seeking certification in elementary education, will not satisfy science requirements for degrees in other colleges of University.) *Two lecture, two laboratory hours per week.*

2002. Natural History and Bio-Conservation. (3). Emphasis on plants and animals in their environment, use of field work in teaching elementary science, and study of ecological principles related to bio-conservation. (For students in College of Education seeking certification in elementary education; will not satisfy science requirements for degrees in other colleges of University.) *Two lecture, two laboratory hours per week.* PREREQUISITE: BIOL 2001.

2232. General Horticulture. (3). Major aspects of horticulture with emphasis on growing ornamental plants, propagation, disease control, nutrition, pruning, soils and greenhouse management. *Two lecture, two laboratory hours per week.* PREREQUISITE: BIOL 1200 or equivalent or permission of instructor.

2780. Human Radiation Biology. (3). Biological effects of various types of radiation on human body and considerations involved in exposure control. (Limited to students enrolled in reactor technician program in Center for Nuclear Studies).

3030. Principles of Animal Physiology. (4). Basic concepts of animal function, including study of many invertebrate phyla and most classes of vertebrate organisms. *Two lecture, four laboratory hours per week.* PREREQUISITE: 8 hours of animal biology or equivalent and COREQUISITE: CHEM 3311.

3050. General Ecology. (4). Plant and animal communities in relation to their environment. *Two lecture, four laboratory hours per week.*

3070. Genetics. (4). Principles of heredity, including laboratory experiments in *Drosophila* breeding. *Three lecture, three laboratory hours per week.*

3071. Human Genetics. (3). Genetic principles as they apply to man, including pedigree analysis, genetic counseling, genetic engineering, and eugenics. *Three lecture hours per week.* PREREQUISITES: BIOL 1200, 1600, and 2000 or permission of the instructor.

3100. History of Biology. (3). Development of science of biology, considering work of outstanding biologists and influence of their contributions. PREREQUISITE: 16 semester hours in biology or permission of instructor.

3170. Heredity. (3). Principles of heredity with applications to human problems, for non-science majors and recommended for students who desire a better understanding of heredity and eugenics. *Not acceptable as credit toward biology major or minor.*

3220. General Plant Anatomy. (4). Comparative development and structure of roots, stems, and leaves in flowering plants. *Two lecture, four laboratory hours per week.*

3221. Morphology of Lower Plants. (4). Comparative studies of possible fossil ancestors and theories of origin of the angiosperms of lower plants through bryophytes. *Two lecture, four laboratory hours per week.*

3222. Morphology of Vascular Plants. (4). Comparative study of the life cycles, development, structure, reproduction, and phylogeny of vascular plants from most primitive to most. *Two advanced postlecture, four laboratory hours per week.*

3240. Field Botany. (4). Introduction to collection, identification, and classification of woody and herbaceous plants in Memphis area; emphasis on field experience. *Two lecture, four laboratory hours per week.*

3400. The Relation of Microorganisms to Man. (3). Nature and activities of microorganisms, both harmful and beneficial, as they affect welfare of man. Topics include: etiology and transmission of diseases, immunity, microbiology of water, foods, and soil. non-science majors. Credit not allowed for both 3400 and 3500. *Not acceptable as credit toward biology major or minor.*

3440. Pethophysiology. (3). Effects of pathogenic organism upon human body and abnormalities in physiological processes occurring during disease. (Primarily for nursing students.)

3500. General Microbiology. (5). Fundamentals of bacteriology. *Three lecture, four laboratory hours per week.*

3560. Applied Microbiology. (4). Introduction to microbiology of water, soil, air, food sewage, industrial processes, and pathogens. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3500 or equivalent.

3610. Vertebrate Embryology. (4). Development of selected vertebrate embryos from fertilized egg cell. *Two lecture, four laboratory hours per week.*

3620. Comparative Anatomy of Vertebrates. (5). Origin, development, structure, and functions of organs and systems of selected forms of vertebrates. *Two lecture, six laboratory hours per week.* PREREQUISITE: BIOL 2000 or permission of instructor.

3700. Vertebrate Zoology. (4). Life histories, adaptations, ecology, distribution, behavior, and classification of vertebrates. *Two lecture, four laboratory hours per week.*

3730. Human Physiology. (4). Normal functions of human body. *Three lecture, two laboratory hours per week.*

3800. Parasitology. (4). Distribution, morphology, life history, economic importance, and control of some of parasites of man and domestic animals. Protozoa through helminths. *Two lecture, four laboratory hours per week.*

3840. Invertebrate Zoology. (4). (4B40). Major invertebrate phyla with emphasis on systematics, phylogeny, embryology,

and ecology of selected types. *Two lecture, four laboratory hours per week.*

3900. General Entomology. (4). Introduction to insects with emphasis on morphology, physiology, development, behavior, and ecology. *Three lecture, three laboratory hours per week.*

3940. Systematic Entomology. (4). Classification of insects, interpretation and use of keys, and preparation of a representative collection. Extended field trips to be arranged. *Two lecture, four laboratory hours per week.*

3960. Medical Entomology. (4). Distribution, morphology, life history, medical importance, and control of insects and other arthropods which serve as vectors for disease-producing organisms. *Two lecture, four laboratory hours per week.*

3965. Pest Control. (4). Recognition, life history, habits, and control of insect pests attacking stored grain, wood, fabrics, food products and animals. Includes some non-insect pests, such as noxious birds, rodents, and snakes. *Two lecture, four laboratory hours per week.* PREREQUISITE: permission of instructor.

4000. Problems in Biology. (2-4). Individual problems pursued by qualified students under supervision of member of biology faculty; emphasis on interest and proficiency in biological research.

4002-6002. Toxicology. (3). Effects of foreign substances on biological mechanisms. Absorption, excretion, metabolism, and biotransformation of potentially harmful substances. PREREQUISITE OR COREQUISITE: CHEM 3312.

4003-6003. Experimental Toxicology. (4). Advanced aspects of toxicology; instrumentation, organism culturing, and procedures involved in the assessment of relative toxicity. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 4002. COREQUISITE: CHEM 4511 or consent of instructor.

4030-6030. Cellular Fine Structure. (3). Ultrastructure of cells. How cells use structures to perform tasks. Survey of cells and tissues in plant and animal kingdom. Liberal use made of micrographs during lecture. *Three lecture hours per week.* PREREQUISITE: BIOL 1111 or consent of instructor.

4031-6031. Bioenergetics. (4). Diversity and unity of energetics in living systems. Emphasis on evolutionary relationships of specific cellular components to different modes of bioenergetics. *Two lecture, four laboratory hours per week.* PREREQUISITE: CHEM 3312.

4060-6050. Field Technique in Ecology. (4). Field techniques of applied ecology covering practical training in forest, field, aquatic, and atmospheric sampling and analysis. Extended field trips. *Two lecture, four laboratory hours per week.* PREREQUISITE: consent of instructor.

4060-6060. Limnology. (4). Physical and chemical attributes of lakes, ponds, and streams; organisms of fresh water, problems of production; practical training in limnological methods and identification of organisms. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1112 and one year of chemistry.

4080-6080. Radiation Biology. (3). Origin and characteristics of ionizing radiations with detailed discussion of radiation effects upon life processes from molecular to ecosystem level. *Two lecture, two laboratory hours per week.* PREREQUISITES: CHEM 3311 or 3312, BIOL 3070.

4100-6100. Organic Development. (3). Theoretical and scientific evidences concerning origin, development, and establishment of major groups of living and extinct animals and plants. Recommended for biology majors and general students as well. PREREQUISITE: one year of biology

4101. Biological Instrumentation and Methods. (2). Principles and applications of routine instruments and methods employed in biological experimentation. Such concepts and practices as weights and measures, pH, UV/visible spectrophotometry, chromatography, centrifugation, isotope counting, and electrophoresis. Emphasis on laboratory experiences. *One lecture, two laboratory hours per week.*

4130-6130. Cell and Molecular Biology. (4). Introduction to principles of molecular biology; of ultrastructure, intracellular metabolism, gene structure and function, and cell differentiation. *Two lecture, four laboratory hours per week.* PREREQUISITES: BIOL 1111 or equivalent, BIOL 3070 and CHEM 3312.

4160-6160. Histological Techniques. (4). Methods of preparing issue for examination at the light and electron microscopic level. *One lecture, six laboratory hours per week.* PREREQUISITE: BIOL 2000 or permission of instructor.

4225-6225. Mycology. (4). Basic life cycles, morphology and classification of fungi. Interaction of fungal organisms in environment. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1111 or equivalent or consent of instructor.

4226-6226. Phycology. (4). Morphology and reproduction of algae; emphasis on fresh water forms. Selected topics on algal genetics, algal physiology, and pollution. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1111 or equivalent or consent of instructor.

4231-6231. Plant Physiology. (4). Principles of physiology and their application to lower plant groups, exclusive of bacteria and related forms. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1111 or its equivalent.

4232-6232. Plant Physiology. (4). Principles of physiology and application to living organisms; emphasis on higher plants. *Three lecture, three laboratory hours per week.* PREREQUISITE: BIOL 1111 or its equivalent.

4240-6240. Plant Taxonomy. (4). Principles of plant taxonomy; special attention to classification of selected vascular plant families. *Lectures, laboratory hours, and field trips.* PREREQUISITE: BIOL 3240 or permission of instructor.

4242. Woody Plants of the Mid-South. (3). Identification and classification of trees, shrubs and woody vines of Tennessee and adjacent Arkansas, western Kentucky, southeastern Missouri and northern Mississippi; emphasis on both native and cultivated woody species. Identification primarily of plants in summer condition, but also woody plants in winter. *One lecture, two laboratory hours per week.* PREREQUISITES: BIOL 1200, 1600 or permission of the instructor.

4250-6250. Forest Ecology. (4). Developmental and structural analysis of forest types. Regional silviculture in United States. Autecology of important species. Field trips. *Three lecture, two laboratory hours per week.* PREREQUISITE: BIOL 3050 or permission of instructor.

4400. Advanced Microbiology. (4). Advanced theory and principles of microbiology; emphasis on morphology and bacterial metabolism. *Two lecture, four laboratory hours per week.* PREREQUISITES: BIOL 3500 and one year of inorganic chemistry, with organic chemistry desirable.

4440-6440. Pathogenic Microbiology. (4). Survey primarily of pathogenic bacteria, diseases they cause and methods of diagnosis; introduction to immunological principles and immunity. Considerable attention to laboratory methods used for identification of pathogenic bacteria. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3500, with organic chemistry desirable.

4444-6444. Immunology. (4). *In vitro* and *in vivo* reactions of antigens and antibodies, hypersensitivities, blood groups and vaccines. *Two lecture, four laboratory hours per week.* PREREQUISITES: BIOL 3500 and CHEM 3311.

4450-6450. Microbial Ecology. (3). Roles of microorganisms in the environment. Microbial processes, interactions with the environment and biota, population ecology, community ecology, and biodegradation. *Three lecture hours per week.* PREREQUISITE: BIOL 3500, CHEM 4511 and 4512, or consent of instructor.

4451-6451. Field Techniques in Microbial Ecology. (3). Intensive field course; philosophy and methods of microbial ecology. Extensive field work on Mississippi River required. One extensive field trip. *One lecture, four laboratory hours per week.* PREREQUISITE OR COREQUISITE: BIOL 4450 and permission of instructor.

4460-6460. Sanitary Bacteriology. (4). Microorganisms in relation to water and sewage, disinfection and disinfectants. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3500 or consent of instructor.

4470-6470. Molecular Genetics. (4). Structure, functions and replication of DNA, recombination, colinearity of DNA with genetic map, mutagenesis, gene transfer, plasmids, code, protein synthesis, suppression, regulation of gene expression, and genetic engineering. Basic for students without formal training in molecular genetics. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3500.

4475-6475. Recombinant DNA Techniques. (4). Laboratory with both theory and application of recombinant DNA techniques. *Eight laboratory hours per week.* PREREQUISITE: Consent of instructor and BIOL 4470-6470 or equivalent.

4501. Virology. (3). Introductory study of viruses and methods of their cultivation, isolation and characterization. *Three lecture hours per week.* PREREQUISITE: BIOL 3500.

4560-6560. Microbiology of Foods. (4). Microorganisms in natural and processed foods, origins, nature, and effects on foods; enumeration, and relation to health. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3500 or consent of instructor.

4570. Practicum in Biology. (1-4). Directed extra-departmental studies in special areas of biology. A maximum of four hours credit may be applied toward degree requirements. PREREQUISITES: major in biology and permission of advisor. (S/U).

- 001 BOTANY
- 002 MICROBIOLOGY
- 003 INVERTEBRATE ZOOLOGY OR ENTOMOLOGY
- 004 VERTEBRATE ZOOLOGY
- 005 TOXICOLOGY

4604-6604. Ethology. (4). Animal behavior with emphasis on recent developments in the field, including history of ethology, learning, releasers, communication, orientation, instinct, biological clocks, and evolution of behavior. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1112 or its equivalent.

4620-6620. Vertebrate Histology. (4). Microscopic study of normal tissues and organs of vertebrate body. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3610 or 3620 or permission of instructor.

4630-6630. General Endocrinology. (3). Anatomy and physiology of the organs of internal secretion; role of hormones in metabolism and development. PREREQUISITE: BIOL 3730.

4644-6644. Ichthyology. (4). Collection, preservation, identification, life histories, management, and economic importance of fishes. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1112.

4651-6651. Field Techniques of Vertebrate Zoology. (4-6). Techniques in field study of vertebrates. Extended field studies outside local area.

4720-6720. Vertebrate Neurology. (4). Nervous system of selected vertebrates. *Three lecture, two laboratory hours per week.* PREREQUISITE: BIOL 1112 or permission of instructor.

4740-6740. Mammalogy. (4). Classification, distribution, life histories, economic importance, techniques of field study, methods of collection and preservation of mammals. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3700.

4744-6744. Herpetology. (4). Classification, distribution, life histories, techniques of collection and preservation, natural habitats of North American reptiles and amphibians. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 3620 or 3700 or permission of instructor.

4760. Wildlife Ecology. (4). Distribution, identification, population analysis, game mapping techniques, and management of wildlife. *Two lecture, four laboratory hours per week.* PREREQUISITES: BIOL 3050 or 3700 or permission of instructor.

4770-6770. Mammalian Genetics. (4). Principles of heredity of mammals with primary emphasis on mice and humans. *Three lecture, two laboratory hours per week.* PREREQUISITE: BIOL 3070 or equivalent.

4820-6820. Protozoology. (4). Free living and parasitic protozoa; consideration to structure, function, taxonomy, habitat, and life history. *Two lecture, four laboratory hours per week.*

4901-6901. Field Technique in Entomology. (4). Field techniques used in aquatic entomology and larval taxonomy. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1112 or its equivalent and consent of instructor.

4920-6920. Insect Morphology. (4). Form and structure of insects, considering both external and internal morphology. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1112 or its equivalent.

4930-6930. Insect Physiology. (4). Physiology as applied to life processes of insects. *Two lecture, four laboratory hours per week.* PREREQUISITE: BIOL 1111 or equivalent.

The following courses are taught only at the Gulf Coast Research Lab, Ocean Springs, Mississippi. Memphis State University residence credit is given through affiliation with the laboratory.

4010-6010. Aquaculture. (6). Review of technology, principles, and problems relating to the science of aquaculture with emphasis on culture of marine species. PREREQUISITES: 16 hours of zoology including invertebrate and vertebrate zoology or ichthyology.

4020-6020. Comparative Histology of Marine Organisms. (1-6). Histological organization of representative marine organisms. Fixation, processing, and study of tissues using light microscopy, transmission and scanning electron microscopy. Structural changes and physiological changes during life cycle of organism including histopathology. PREREQUISITE: consent of instructor.

4051-6051. Marine Ecology. (5). Relationship of marine organisms to environment; includes effects of temperature, salinity, light, nutrient concentration, currents, food, predation and competition on the abundance and distribution of marine organisms. PREREQUISITES: 16 hours of biology including general zoology, general botany, and invertebrate zoology.

4052-6052. Salt Marsh Plant Ecology. (4). Emphasis on botanical aspects of local marshes; includes plant identification, composition, structure, distribution and development of coastal marshes. Biological and physical interrelationships. Primary productivity and relation of marshes to estuaries and associated fauna. PREREQUISITES: general botany, plant taxonomy, plant physiology, and general ecology or consent of instructor.

4200-6200. Marine Botany. (4). Local examples of principal groups of marine algae and maritime flowering plants, treating structure, reproduction, distribution, identification and ecology. PREREQUISITES: ten hours of biology, including introductory botany.

4300-6300. Coastal Vegetation. (3). General and specific aspects of coastal vegetation; emphasis on local examples. PREREQUISITES: 10 hours of biology including general botany.

4500-6500. Marine Microbiology. (5). Role of microorganisms in overall ecology of oceans and estuaries. PREREQUISITES: general microbiology and environmental microbiology or consent of instructor.

4600-6600. Marine Vertebrate Zoology and Ichthyology. (6). Marine Chordata, including lower groups and mammals and birds; emphasis on fishes. PREREQUISITES: sixteen semester hours of zoology including comparative anatomy or consent of instructor.

4610-6610. Early Life History of Marine Fishes. (4). Reproductive strategies and developmental processes of marine fishes. Temporal and spatial distribution patterns, population dynamics, and ecological interactions of fish eggs and larvae. Methods of sampling and identifying eggs and larvae. PREREQUISITES: ichthyology, fisheries, biology, ecology, and/or consent of instructor.

4646-6646. Marine Fisheries Management. (4). Overview of practical marine fishery management problems. PREREQUISITE: consent of instructor.

4700-6700. Behavior and Neurobiology of Marine Animals. (4). Behavior, neuroanatomy, and neurophysiology of marine animals with emphasis on neural mechanisms underlying behavior of selected invertebrates, fishes, birds and mammals. PREREQUISITES: 16 hours of zoology and/or psychology or consent of instructor.

4800-6800. Marine Invertebrate Zoology. (6). Important free-living, marine estuarine invertebrates of the Mississippi Sound and adjacent continental shelf of the northeastern Gulf of Mexico; emphasis on structure, classification, phylogenetic relationships, larval development and functional processes. PREREQUISITES: 16 hours of zoology including introductory invertebrate zoology.

4844-6844. Parasites of Marine Animals. (6). Parasites of marine animals; emphasis on morphology, taxonomy, life histories and host parasite relationships. Lecture, laboratory and field work included. PREREQUISITES: general parasitology or consent of instructor.

4850-6850. Fauna and Faunistic Ecology of Tidal Marshes. (4). Survey and discussion of taxonomy, distribution, trophic relationships, reproductive strategies and adaptation of tidal marsh animals; emphasis on those occurring in northern Gulf marshes. PREREQUISITES: 16 hours of biology and junior standing or consent of instructor.

CHEMISTRY

PROFESSOR H. GRADEN KIRKSEY, *Chairman*

Room 210, J. M. Smith Hall

The Department of Chemistry offers courses leading to the B.S. degree with a major in either chemistry or physical science. The department also offers a program culminating in the professional degree of Bachelor of Science in Chemistry. This program is designed to meet the requirements of the Committee on Professional Training of the American Chemical Society, and is undertaken primarily by students who desire to go directly to positions in chemical industry, or to enroll for postgraduate study in chemistry.

SEQUENCE OF COURSES

Students who present credit for at least two years of high school mathematics (including algebra), or who have an ACT mathematics score of 22 or better, should enroll in CHEM 1111 if they plan to take more than one year of college chemistry, or plan to major in either a natural science or in civil, mechanical, or electrical engineering. CHEM 1100 is a one-semester course for students of limited preparation in mathematics whose curriculum calls for the CHEM 1111-1112 sequence. CHEM 1051-1052 is a two-semester sequence for students interested in the science of chemistry, but is not credited toward a major in chemistry or physics. It does to fulfill the University science requirements of other majors. Credit may not be received for both CHEM 1100 and CHEM 1111 simultaneously. PSCI 1031-1032 is an introductory sequence requiring no previous science experience. These courses emphasize fundamental principles and concepts, and are designed for non-science majors interested in a study of several areas of physical science.

ADVANCED PLACEMENT

Beginning students who have had previous high school training in chemistry are invited to apply for advanced placement.

LABORATORY SAFETY AND COURSE REQUIREMENTS

Laboratory safety is strictly practiced in the Department of Chemistry. Approved eye protection must be worn as required in all chemical laboratories. In addition, to ensure that students enrolled in laboratory courses learn the necessary safety information to safely participate in the laboratory course, all prerequisites and/or corequisites for all laboratory courses are strictly enforced. As a result, when a student enrolls in a laboratory course without prior completion of the necessary prerequisite or corequisite, the student will be dropped from the laboratory course. In addition, when a student simultaneously enrolls in a laboratory course and corequisite course, but subsequently drops or discontinues the corequisite course, the student will be dropped from the laboratory course. In the event any student fails to comply with any safety requirements of the Department of Chemistry, the Department has the right to not allow the student to perform laboratory work, or to withdraw the student from the laboratory course, as appropriate.

E070 CHEMISTRY (CHEM)

1000. Chemistry of Life Processes. (4). Chemistry as related to understanding of life processes. Implications of topics from general and organic chemistry, as well as biochemistry. *Three lecture, two laboratory hours per week.* *This course will not be credited toward a major in chemistry, physics, physical science, or engineering, nor does it satisfy the general education science requirement.*

1001. Chemistry for Nurses. (3). Topics from various areas of chemistry which are applicable to nursing profession. *Three lecture hours per week.* *Will not be counted toward University general degree requirement for science nor toward major in College of Arts and Sciences. May be counted as free elective in all colleges except Engineering.*

1051. College Chemistry. (4). Fundamental laws of chemistry and impact of chemistry on modern society. *Three lecture, two laboratory hours per week.* *Not credited toward major in chemistry or physics.*

1052. College Chemistry. (4). Continuation of CHEM 1051; emphasis on elementary organic and biochemistry. *Three lecture, two laboratory hours per week.* *Not credited toward major in chemistry or physics.* PREREQUISITE: CHEM 1051.

1100. Introduction to Chemistry. (3). For students whose curriculum requires CHEM 1111, but who feel their background is inadequate. Emphasis on scientific calculations and properties of matter. *Three lecture hours per week.* *Not credited toward major in chemistry, physics, physical science, or engineering, nor does it satisfy any part of science requirement for any degree.* COREQUISITE: MATH 1211 or 1212 recommended.

1111. Principles of Chemistry. (4). For students who are majoring in one of the physical sciences, biology, mathematics or engineering, or who are following a pre-professional program requiring additional chemistry. *Three lecture, three laboratory hours per week.* PREREQUISITE: two units of high school mathematics including algebra, or an ACT score of 22 or better on the mathematics section, or CHEM 1100. COREQUISITE: MATH 1211, 1212, or 1321.

1112. Principles of Chemistry. (4). Continuation of CHEM 1111. *Three lecture, three laboratory hours per week.* PREREQUISITE: CHEM 1111.

3201. Quantitative Chemical Analysis Laboratory. (2). (3404). Application of the techniques of quantitative analysis in areas described in CHEM 3211. *Six laboratory hours per week.* PREREQUISITE OR COREQUISITE: CHEM 3211.

3211. Quantitative Chemical Analysis. (2). (3400). Theory and practice of modern chemical analysis. Includes: acid-base, redox, and complex ion equilibria, separation methods, absorptiometry, flame spectroscopy, and electroanalytical methods. *Two lecture hours per week.* PREREQUISITE: CHEM 1112. COREQUISITE: CHEM 3201 recommended.

3301. General Organic Chemistry Laboratory. (1). Emphasis on laboratory techniques as applied to synthesis and class reactions. *Three laboratory hours per week.* PREREQUISITE: CHEM 1112. PREREQUISITE OR COREQUISITE: CHEM 3311.

3302. General Organic Chemistry Laboratory. (1). Continuation of CHEM 3301, emphasis on correlation of chemical behavior with structure. Credit may be obtained either in 3302 or 3303, but not both. *Three laboratory hours per week.* PREREQUISITES: CHEM 3311 and 3301. COREQUISITE OR PREREQUISITE: CHEM 3312.

3303. Synthesis and Identification of Organic Compounds. (2). Synthesis, separation, and identification of organic compounds in the laboratory. *Six laboratory hours per week.* PREREQUISITE: CHEM 3301. COREQUISITE OR PREREQUISITE: CHEM 3312.

3311. General Organic Chemistry. (3). Systematic study of preparations and properties of organic compounds, including interpretations based on modern theories of organic chemistry. Emphasis on aliphatic and aromatic hydrocarbons, their halogen derivatives, and alcohols. *Three lecture hours per week.* PREREQUISITE: CHEM 1112.

3312. General Organic Chemistry. (3). Continuation of CHEM 3311; emphasis on more important functional derivatives of aliphatic and aromatic hydrocarbons. PREREQUISITE: CHEM 3311.

3401. Elementary Physical Chemistry. (3). Abbreviated course in physical chemistry. Includes elementary thermodynamics, phase transitions, solution chemistry, electrochemistry, kinetics, colloidal and surface chemistry, and molecular polarity. Credit may be obtained either in this course or in 3411, but not both. *Three lecture hours per week.* PREREQUISITES: CHEM 3211 or 3311, PHYS 2112 or 2512.

3402. Physical Chemistry Laboratory. (2). Measurements of physical properties; reaction rates, and equilibria. Application of electrochemistry and calorimetry. *Six laboratory hours per week.* PREREQUISITE: CHEM 3411. COREQUISITE OR PREREQUISITE: CHEM 3412.

3407. Elementary Physical Chemistry Laboratory. (1). Measurement of physical quantities, including equilibrium constants, heats of reaction, molecular weight, viscosities, and reaction rate constants. *Three laboratory hours per week.* COREQUISITE: CHEM 3401.

3411. Physical Chemistry. (3). Thermochemical foundations of physical chemistry applied to open and closed systems, kinetic theory of gases, and surface chemistry. *Three lecture hours per week.* PREREQUISITES: PHYS 2112 or 2512; MATH 2321.

3412. Physical Chemistry. (3). Continuation of CHEM 3411 emphasizing kinetics of chemical reactions, quantum chemistry, chemical bonding, statistical mechanics, spectroscopy, and other methods of structure determination. *Three lecture hours per week.* PREREQUISITE: CHEM 3411.

3604. Instrumental Methods. (3). Analytical instrumental techniques including molecular spectroscopy, chromatography, atomic spectroscopy, and electrochemical analysis. *One lecture, six laboratory hours per week.* PREREQUISITES: CHEM 3201, 3211, 3311, or permission of instructor.

4001. Environmental Chemistry. (3). Chemical phenomena occurring in soil, atmospheric and aquatic environments; consideration of natural resources and energy. *Three lecture hours per week.* PREREQUISITE: CHEM 3311.

4111-6111. Inorganic Chemistry. (3). (4210). Theoretical and applied inorganic chemistry. Stress on relationship of structure and bonding to properties of elements and compounds. Includes introductory molecular orbital theory, coordination compounds and organometallics, ligand field theory, nonaqueous solvent systems, and reaction mechanisms. *Three lecture hours per week.* PREREQUISITE: CHEM 3412 or permission of the instructor.

4199. Special Topics in Inorganic Chemistry. (1-6). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3312 and permission of instructor.

001 BIOINORGANIC CHEMISTRY
002 ORGANOMETALLIC CHEMISTRY
003 INORGANIC SYNTHESIS

4220-6220. Advanced Instrumental Analysis. (4). Advanced topics in electrochemical, spectroscopic, and chromatographic methods, and an introduction to electronic and optical principles of chemical instrumentation. *Two lecture, six laboratory hours per week.* PREREQUISITE: CHEM 3412.

4299. Special Topics in Analytical Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412 and permission of instructor.

001 ATOMIC SPECTROSCOPY

4399. Special Topics in Organic Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3312.

001 HETEROCYCLIC CHEMISTRY
002 TERPENES AND STEROIDS
003 ORGANOPHOSPHORUS CHEMISTRY
004 POLYMER ORGANIC CHEMISTRY
005 POLYMER CHEMISTRY
006 ORGANIC SYNTHESIS
007 BIOSYNTHESIS

4499. Special Topics in Physical Chemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 3412 and permission of instructor.

001 MOLECULAR SPECTROSCOPY
002 QUANTUM CHEMISTRY
003 CHEMICAL KINETICS
004 CHEMICAL THERMODYNAMICS
005 ELECTRON SPIN RESONANCE SPECTROSCOPY
006 STATISTICAL MECHANICS

4601-6601. Biochemistry Laboratory. (1). Investigation of physical and chemical properties of compounds of biological interest by common laboratory techniques. Assay of enzymes and enzyme kinetics stressed. *Three laboratory hours per week.* PREREQUISITES: CHEM 3302 or 3303 and 3312. PREREQUISITE OR COREQUISITE: CHEM 4511.

4502-6502. Biochemistry Laboratory. (1). Biochemical laboratory techniques; emphasis on fractionating biological samples and measuring metabolic activity. *Three laboratory hours per week.* PREREQUISITE: CHEM 4511.

4611-6511. Biochemistry. (3). Chemistry of amino acids and proteins related to their properties in biochemical systems. Enzymology, including kinetics and conformation studies. Coenzymes and their functions. Chemistry of carbohydrates, lipids, and nucleotides. *Three lecture hours per week.* PREREQUISITE: CHEM 3312. COREQUISITE: CHEM 4501 recommended.

4512-6512. Biochemistry. (3). Continuation of CHEM 4511. Metabolism of carbohydrates, amino acids and nucleotides. Biochemistry of DNA and RNA, including their relationship to biosynthesis of proteins. Metabolic control. *Three lecture hours per week.* PREREQUISITE: CHEM 4511.

4599. Special Topics in Biochemistry. (1-3). Topics of current interest to undergraduates pursuing B.S. degree. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: CHEM 4512.

- 001 ENZYME KINETICS AND MECHANISMS
- 002 DNA REPLICATION
- 003 BIOCHEMISTRY
- 004 MACROMOLECULAR STRUCTURE AND FUNCTION

4911-6911. Chemical Literature and Seminar. (1). Use of chemical literature, writing of technical reports, and oral presentation of investigative reports. *One lecture hour per week.* PREREQUISITE: permission of instructor.

4991. Chemical Research. (1). (See description under CHEM 4993.)

4992. Chemical Research. (2). (See description under CHEM 4993.)

4993. Chemical Research. (3). Introduction to basic research. Student collaborates with staff member on problem of mutual interest selected from fields of analytical, inorganic, organic, and physical chemistry, and biochemistry. Experience in effective laboratory techniques, critical experiment design, and scientific reporting. To receive credit toward a major in chemistry, student must complete three semester hours in these research courses. *Three to nine laboratory hours per week.* PREREQUISITE: CHEM 3312 and permission of instructor. Students expected to complete prospectus in consultation with a faculty sponsor before registering for this course.

PHYSICAL SCIENCE (PSCI)

1031. Physical Science. (3). Introductory course; emphasis on fundamental principles and concepts of physical science. *Two lecture, two laboratory hours per week.*

1032. Physical Science. (3). Continuation of PSCI 1031. *Two lecture, two laboratory hours per week.* PREREQUISITE: PSCI 1031.

4050. Glass Manipulation. (2). Laboratory course in fundamentals of glass manipulation and construction and repair of simple laboratory apparatus. *Six laboratory hours per week.* PREREQUISITE: senior standing

NUCLEAR POWER OPERATIONS (CHEM)

1010. Chemistry for Reactor Technicians. (3). Chemistry of nuclear power plants; emphasis on water chemistry and materials used in reactor construction. Forty contact hours of instruction. *Not applicable toward major or minor in chemistry or physical science. Course created for and limited to students enrolled in Nuclear Studies Program.*

3010. Corrosion Chemistry. (3). Basic principles underlying corrosion of metals; effect of corrosion, methods of prevention in design, use, and storage of materials, and failure case histories in generic power plants. Emphasis on special corrosion processes in nuclear pressure vessels and tubing. PREREQUISITES: PHYS 2112, CHEM 1010. COREQUISITE: MATH 2321.

3030. Chemical Thermodynamics I. (3). Thermodynamics, including basic concepts of energy flow and transformation; introduction of thermodynamic properties such as enthalpy and entropy to illustrate application of laws of thermodynamics. PREREQUISITES: MATH 2321, PHYS 2512.

3031. Chemical Thermodynamics II. (3). Application of principles developed in CHEM 3030 to analysis of operation of nuclear power plant. PREREQUISITE: CHEM 3030 or PHYS 4510.

3032. Radiochemistry for Nuclear Plants. (3). Chemistry of fission products in nuclear fuel, including effect of their presence in coolant water on plant materials. Common chemical reactions of fission products and their impact on environment. PREREQUISITES: CHEM 3010, PHYS 4220.

CRIMINAL JUSTICE

ASSOCIATE PROFESSOR

WILLIAM V. PELFREY, *Chairman*

Room 405, Mitchell Hall

E250 CRIMINAL JUSTICE (CJUS)

1100. Introduction to Criminal Justice. (3). Introduction to American criminal justice system in its three dimensions: police, courts, and corrections, tracing its development from ancient and early English beginnings to present time.

2100. Concepts and Issues in Criminal Justice. (3). Topics emphasizing specific problems in criminal justice system. Focus on integration of police, courts, and corrections subsystems and their relations to community. PREREQUISITE: CJUS 1100.

2520. Street Law: A Course in Practical Law. (3). Practical application of law to everyday problems. Legal processes and resources available to every citizen; case materials in criminal, consumer, environmental, and family law with reference to their relationship in criminal justice context.

3128. Research and Statistics in Criminal Justice. (3). Statistical and non-statistical approaches employed in contemporary criminal justice; review and analysis of current findings.

3152. Drug Addiction and Alcoholism. (3). Cultural and medical aspects of use of alcohol and various other drugs; consideration of roles of law enforcement and corrections in these areas.

3226. Police in America. (3). (3526). Comparative analysis of problems, procedures, organization, and functions of effective police organization.

3326. Courts and Court Administration. (3). Court operations including assignments and specialization of judges, document preparation and calendaring of cases; consideration of problems involving court personnel, funds and other property in court's custody and maintaining record of prisoners awaiting trial in criminal cases.

3426. Corrections in America. (3). Principles of organization and management in corrections administration. Concepts of organizational behavior applied to prisons and other detention facilities and special programs in institutional management. PREREQUISITE: permission of instructor.

3510. Law and Society. (3). Law as system of control and as mechanism for resolution of conflict. Relationship of law to political, economic and social systems critically analyzed and development of legal profession studied.

3521. Criminal Procedure I. (3). (4526). General view of criminal justice system as to application of principles of U.S. Constitution, Bill of Rights, and Fourteenth Amendment. "Due process of law" in federal and state prosecutions and application of Exclusionary Rule of Evidence.

3522. Criminal Procedure II. (3). Application of various constitutional principles to investigative and prosecutive procedures of criminal justice process, including arrest, search and seizure, interrogation, identification procedures and trial and post-trial proceedings. PREREQUISITE: CJUS 3521.

3541. Crime and Criminology. (3). Milieu of crime and factors influencing criminality. Major emphasis: causes of individual and group criminality and ability of criminal justice system to control crime.

4100. Individual Directed Study in Criminal Justice. (1-4). Individual directed reading and research in special areas of interest in field of criminal justice. PREREQUISITE: permission of director.

4120. Crime and Criminal Typologies. (3). Classification of crime and typical elements involved in each type of crime; classification of criminal offenders and salient career variables associated with each type of offender relative to background, crime, and career prognosis.

4126. The Administration of Criminal Justice. (3). (3126). Criminal justice procedures for detection of crime and arrest of suspects through prosecution, adjudication and sentencing and imprisonment, to release and revocation. Policies and practices in criminal justice process.

4130. Ethical Dilemmas in Criminal Justice. (3). Legal, moral, and social implications of ethical dilemmas in criminal justice, including police use of deadly force, police discretion, victimless crimes, surveillance, enforcement of unpopular laws, use of informers, plea bargaining, judicial discretion, and capital punishment. Subcultural norms and dilemmas they present to criminal justice practitioner.

4150. Internship in Criminal Justice. (1-3). Experience in actual criminal justice setting; internship initiated by department in agency, and both department and agency supervise and direct student program. May be repeated for maximum of 6 hours. PREREQUISITE: senior standing and/or approval of instructor.

4160. Seminar in Criminal Justice. (3). Current criminal justice issues and problems, with review of professional literature in particular areas of criminal justice. May be repeated for maximum of 6 hours credit. PREREQUISITE: senior standing and invitation of criminal justice faculty.

4170. Prevention and Deterrence of Crime. (3). Theoretical and practical strategies for crime prevention and deterrence. Social, environmental, and mechanical developments. Police, courts, and correctional elements of criminal justice system analyzed in terms of current effectiveness and future potential for crime suppression.

4220. Comparative Police Administration. (3). Worldwide police organizations and techniques; recent developments in Great Britain, France, West Germany and Scandinavian countries. Includes analysis applicable to U.S. police agencies.

4231. Public Relations and the Police. (3). Role of law enforcement personnel and administrators in police-community relations; forms and possible approaches for improving communications with public; role of police officer in improvement of public image.

4233. Organized Crime. (3). Nature, structure, characteristics, and investigation of syndicated crime; its impact on social and economic conditions in this country.

4235. Private and Industrial Security. (3). Role and function of private police organizations and legal restrictions on private security personnel. Facets of private security to include retail, industrial and corporate security.

4424-6424. The American Prison System. (3). (3424). Historical development, organizational structure, program content, and current problems of American correctional institutions.

4425-6426. Community Based Corrections. (3). Community based strategies for dealing with criminal offenders. Includes parole, probation, pardon, diversion programs, community residential services, restitution, role of voluntary organizations, and correctional techniques suited to non-institutional settings.

4430. Correctional Casework. (3). Involves integrated phases: social investigation; diagnosis; prescription; implementation and follow-up. Basic goals to reduce crime and recidivism through application of acceptable standards of practice in these phases. For probation officers, counselors, classification officers, parole officers, court-prison employees and students majoring in criminal justice.

4520-6520. Substantive Criminal Law. (3). (3520). Substance of the crime, including common-law sources and basic principles, types of offenses, responsibility, justification and excuse, and related areas.

4530. Principles of Evidence and Proof. (3). Rules of evidence and matters of proof affecting criminal investigation

in investigatory and prosecutive stages of criminal justice. Socio-legal aspect of basic rules of evidence, including hearsay rules, impeachment, materiality and relevancy, privilege, eyewitness identification.

4532-6532. Constitutional Rights of Prisoners. (3). Legal status of persons during preconviction and post-conviction confinement; includes factors involving discipline, legal services, communication, medical aid, and related matters; consideration of civil and criminal liability of prison officials. PREREQUISITE: CJUS 3521.

4533-6533. The Juvenile Justice System. (3). History, organization, programs and procedures of agencies charged with control and prevention of juvenile delinquency including police, juvenile units, juvenile court, and juvenile correctional agencies.

4541-6541. Causes of Crime and Delinquency. (3). Systematic survey of criminal behavior as approached from various disciplines and perspectives. Criminogenic influences of society and the criminal justice system; methods of reducing crime and delinquency.

ENGLISH

PROFESSOR JOSEPH K. DAVIS, *Chairman*

Room 467, Patterson Hall

All candidates for graduation at Memphis State University are required to complete ENGL 1101 and 1102 or their equivalents, with a grade of C or better. Before enrolling in ENGL 1101, a student must have either: (1) an ACT English score of 19 or above, or (2) an SAT verbal score of 450 or above, or (3) a satisfactory completion of a placement essay administered by the Department of English. All other students must successfully complete ENGL 1100 with a grade of C or better before proceeding to ENGL 1101. After successful completion of ENGL 1101 and 1102, all students must take any two of the following: 2101, 2102, 2103, 2104, 2105, 2106, or their equivalents. Freshman and sophomore sequences must be scheduled until completed. ENGL 1101 and 1102 must be taken in sequence; no credit will be allowed for ENGL 1102 until 1101 has been successfully completed.

E080 ENGLISH (ENGL)

0101. English as a Second Language. (1). Introduction to English. Concentration on aural-oral skills; introduction to grammar and sentence structure. Two weekly audio-lingual laboratory sessions required. Open to non-native speakers of English only. Admission by placement only.

0102. English as a Second Language. (1-2). Intermediate reading and composition. Selected readings, review of grammar, and introduction to construction of paragraphs. Audio-lingual laboratory optional. Open to non-native speakers of English only. Admission by placement only.

0103. English as a Second Language. (1-3). Advanced composition. Advanced readings, construction of essays, and study of mechanical writing skills. Audio-lingual laboratory optional. Open to non-native speakers of English only.

NOTE: The accumulation of three credit hours from the above courses and successful completion of 0103 will be considered the equivalent of ENGL 1101. Not more than 3 hours credit may be accumulated in 0101, 0102, 0103.

1100. Introduction to Composition. (3). Review of language fundamentals and English grammar, with extensive practice in writing sentences and paragraphs. For those students who need instruction at the pre-ENGL 1101 level, or who simply want a refresher course in basic writing. RESTRICTION: Satisfies no English requirement for any University degree.

1101. English Composition. (3). Practice in expository writing with emphasis on content, organization, and style (vocabulary and sentence structure) for different purposes and audiences. PREREQUISITE: ENGL 1100 with grade of C or better, or ACT English score of 19 or above, or SAT verbal score of 450 or above, or satisfactory completion of placement essay written under supervision of Department of English.

1102. English Composition and Analysis. (3). Practice in expository writing which synthesizes ideas from various readings, with an emphasis on library work and on documented papers. PREREQUISITE: ENGL 1101 or equivalent.

2101. English Literature. (3). Selected readings in English literature from beginning through eighteenth century; attention to development of literary forms and to cultural context. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

2102. English Literature. (3). Selected readings in English literature from Romantic period to present; attention to development of literary forms and to cultural context. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

2103. Modern European Fiction. (3). Selected readings in British and Continental fiction of nineteenth and twentieth centuries; attention to development of fictional forms and to making of modern European intellectual and literary tradition. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

2104. Poetry and Drama. (3). Selected readings of poems and plays; attention to development of genres. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

2105. American Fiction. (3). Selected readings in American fiction of nineteenth and twentieth centuries; consideration of characteristic themes and techniques of both American novel and American short story. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

2106. Contemporary Literature. (3). Selected readings in poetry, drama, and fiction of America, Britain, and Europe, written since World War II; attention to development of literary modes and to cultural context. Composition and critical thinking beyond levels expected of freshmen. PREREQUISITES: ENGL 1101 and 1102, or their equivalents.

Note: No student may enroll for an upper-division English course until he has completed satisfactorily ENGL 1101, 1102, or their equivalents, and any two of the following: ENGL 2101, 2102, 2103, 2104, 2105, 2106, or their equivalents.

3100. Topics in English. (1-3). Contents announced each semester.

3211. British Literature of the Medieval Period. (3).

3212. British Literature of the Sixteenth Century. (3).

3213. British Literature of the Seventeenth Century. (3).

3214. British Literature of the Restoration and Eighteenth Century. (3).

3221. British Literature of the Romantic Period. (3).

3222. British Literature of the Victorian Period. (3).

3224. British Literature of the Twentieth Century. (3).

3321. American Literature Before 1860. (3).

3322. American Literature Since 1860. (3).

3500. Practical English Grammar. (3). Extended study of the fundamentals of English grammar, sentence structure, usage, diction, punctuation, and spelling.

3501. Modern English Grammar. (3). Introduction to current grammatical theory, especially transformational generative approach. Description of sounds, word structures, syntax, and semantics of English. *Neither a review of grammar nor a remedial course.*

3511. Introduction to Linguistics. (3). Introduction to the nature and functions of human language, to its structural principles, and to its place in culture and society. Emphasis on language diversity and change through history and contact. Discussion of language and thought, origin of language, and other topics.

3521. The American Language. (3). History and development of American English, especially its vocabulary. Development of American grammatical tradition and of American dictionaries. Usage controversies and issues in American English.

3601. Scientific and Technical Writing. (3). Organizing and reporting scientific and technical information in writing. Emphasis on reports, memos, articles and essays about scientific and technical subjects. Also emphasizes documentation, bibliographies, appendices, and graphs. Appropriate patterns of English composition and overall organization discussed. All content comes from student's field of study. PREREQUISITES: completion of MSU English requirement and 9 hours in student's major.

3602. Writing and Editing in the Professions. (3). Workshop in techniques of communicating effectively in business, industry, and government. Developing practical writing skills for technical publications such as reports, data analyses, and research articles. Editing practices involved in packaging and distributing such writing in printed form.

3604. Intermediate Composition. (3). (2602). Study and practice of writing essays and reports at levels beyond freshman English. Focus on construction of clear, logical well made expositions. *An elective which will not fulfill any specific English requirement.* PREREQUISITES: ENGL 1101 and 1102 or their equivalents.

3605. Introduction to Creative Writing. (3). (2601). Introduction to the writing of fiction and poetry.

3701. Introduction to Literary Criticism. (3).

4001. Senior Honors Seminar I. (3). Intensive study of a problem in language or literature. Enrollment limited to English honors students.

4002. Senior Honors Seminar II. (3). Intensive study of a problem in language or literature. Enrollment limited to English honors students.

4100-6100. Topics in English. (3). As announced each semester. Repeatable to a maximum of 6 hours when topics differ. PREREQUISITE: permission of advisor.

4231-6231. Cheucer. (3).

4232. Shakespeare's Tragedies. (3).

4233. Shakespeare's Comedies and Histories. (3).

4234-6234. Milton. (3).

4241-6241. British Novel Through Austen. (3).

4242-6242. British Novel Since Scott. (3).

4261-6261. British Drama To 1642. (3).

4262-6262. British Drama Since 1660. (3).

4321-6321. American Literature: Major Writers Before 1860. (3).

4322-6322. American Literature: Major Writers Since 1860. (3).

4323. Southern Literature. (3).

4341. American Novel To 1900. (3). (3341)

4342. American Novel Since 1900. (3). (3342)

4371. Black American Literature. (3).

4411-6411. European Literature to Renaissance. (3).

4412-6412. European Literature Since Renaissance. (3).

4423. Modern British and American Poetry. (3).

4424. Modern British and American Fiction. (3).

4441-6441. European Fiction. (3). (3441). Movements and writers important to development of Continental fiction from late 18th century to present.

4661. The Bible as Literature. (3).

4501-6601. History of the English Language. (3).

4511. Language and Literature. (3). How linguistics can illuminate the analysis of literature: the nature of literary language and the linguistic options open to a writer.

4621. Language and Society. (3). Place of language in society and how it creates and reflects social relationships. Geographical and social dialects, male/female differences, and language of various subgroups within our culture. Intensive examination of implications of language differences.

4630. Precinctum in ESL. (3 or 6). Experience in observing and teaching, peer teaching, and work with certified ESL teacher. Repeatable to a maximum of six hours.

4631. Methods and Techniques in ESL. (3). Contents announced each semester. Repeatable to maximum of 6 hours.

4632. Skills Approaches and Assessment for ESL. (3). Contents announced each semester. Repeatable to maximum of 6 hours.

4601. Poetry Workshop. (3-6). The nature of poetry, critical approaches to the poem, and practical experience in writing and revising text. Repeatable to maximum of 6 hours with permission of instructor.

4602. Advanced Composition (3). Principles involved in writing clear expository prose. Emphasis on application of these principles; analysis of readings and of student's writing. Repeatable to maximum of 6 hours with permission of instructor.

4603. Fiction Workshop. (3-6). Nature of short story and longer forms of fiction, critical approaches to fiction, and practical experience in writing and revising text. Repeatable to maximum of 6 hours with permission of instructor.

4604-6604. English Prosody. (3). A study of metrics, forms, and types of poetry in English with attention to the principal traditions and critical ideas associated with the writing of verse in English.

4606-6606. Forms of Fiction. (3). A study of how fiction works through analyzing the short story, the novella, and the novel with attention to technical developments.

4801-6801. Research, Report, and Term Paper Writing. (3). Principles and practices in planning, researching, organizing, writing, and documenting a 3000-4000 word paper on subjects drawn from student's field (e.g., social and natural sciences, engineering, business, law, etc.). Includes proper methods of library research, and preparation of formal manuscript, including abstract.

4900. Independent Study. (1-3). A selected topic or problem in the field of literature, language, or writing. PREREQUISITE: consent of departmental adviser.

4996. Honors Thesis. (1-3).

E090 COMPARATIVE LITERATURE (COLI)

4400. The Practice of Comparative Literature. (3). Introduction to theory, methods, and objectives of comparative literature.

4791. Studies in Comparative Literature. (3). Selected authors, works, or literary problems. May be repeated for a maximum of 6 hours credit.

FOREIGN LANGUAGES AND LITERATURES

PROFESSOR

SHARON E. HARWOOD, *Chairman*

Room 375A, Dunn Mathematics
Foreign Languages Building

E090 COMPARATIVE LITERATURE (COLI)

4400. The Practice of Comparative Literature. (3). Introduction to theory, methods, and objectives of comparative literature.

4791. Studies in Comparative Literature. (3). Selected authors, works, or literary problems. May be repeated for a maximum of 6 hours credit.

E110 CLASSICS (CLAS)

With the exception of CLAS 4791, none of the following courses may be used to satisfy the foreign language requirements, nor may they be applied toward a major in classical languages.

2021. Word Origins and Vocabulary Development. (3). Latin and Greek elements found in English; emphasis on building of standard English vocabulary.

2481. Greek and Roman Mythology. (3). Thematic study of classical myths and their function in ancient literature. Emphasis on reading myths in ancient sources in translation.

3021. Scientific Terminology. (3). Origin and derivation of words used in medicine and the sciences; emphasis on building of scientific vocabulary.

3412. Roman Culture. (3). Study based on literary sources, of public and private life, including such topics as family life, slavery, religion, medicine, law, and technology. Recommended for teachers.

3413. Greek Literature in Translation. (3). Reading and analysis of masterpieces of Greek literature in English translation from Homer to Lucian. Emphasis on development of literary types.

3414. Roman Literature in Translation. (3). Reading and analysis of masterpiece of Roman literature in English translation from origins to close of Silver Age. Emphasis on genres of Roman literature.

4791. Special Studies in Classics. (1-3). Topics in classical literature and civilization. May be repeated for maximum of six hours credit. PREREQUISITE: permission of chairman and instructor.

E140 GREEK (GREK)

1101. Elementary Greek. (3). Elements of Greek grammar and syntax; practice in reading and translation.

1102. Elementary Greek. (3). Completion of basic grammar and syntax, with additional readings. PREREQUISITE: GREK 1101 or the equivalent.

2201. Xenophon. (3). Readings and interpretation of Xenophon's *Anabasis*. PREREQUISITE: GREK 1102 or the equivalent.

3111. Greek Historians. (3). Reading and analysis of selections from writings of Herodotus, Thucydides, and later Greek historians.

3511. Greek Tragedy. (3). Reading and analysis of selected tragedies of Aeschylus, Sophocles, and Euripides.

3911. Plato's *Apology*, *Crito*. (3). Reading and analysis of dialogues of Plato which give a prelude to death of Socrates.

4441. Homer. (3). Reading and analysis of selections from Homer's *Iliad* and *Odyssey*.

E170 LATIN (LATN)

1101. Elementary Latin. (3). Elements of grammar; practice in Latin composition and translation.

1102. Elementary Latin. (3). Completion of elementary Latin grammar, with additional readings. PREREQUISITE: LATN 1101 or the equivalent.

2201. Intermediate Latin. (3). Review of basic Latin grammar with reading selections from *The Golden Fleece* and Roman history. PREREQUISITE: LATN 1102 or the equivalent.

2202. Intermediate Latin. (3). More advanced readings from major authors. PREREQUISITE: LATN 2201 or equivalent.

3111. Roman Historians. (3). Readings and analysis of selections from Caesar, Livy, Tacitus, and Suetonius, emphasis on nature of Roman historiography.

3211. Vergil. (3). Reading and analysis of the *Aeneid*.

3811. Ovid. (3). Reading and analysis of the myths in Ovid's *Metamorphoses*.

3912. Cicero. (3). Reading and analysis of *De Amicitia* and *De Senectute*.

4411. Roman Letter Writers. (3). Reading and analysis of Cicero's *Letters*.

4611. Roman Satire. (3). Reading and analysis of satires of Horace, Persius, and Juvenal.

4711. Elegy, Lyric, and Epigram. (3). Reading and analysis of selections from Catullus, Horace, Tibullus, Propertius, and Martial.

E210 LANGUAGES (LANG)

1701-1702. Special Studies in Modern Foreign Languages. (3, 3). Freshman-level instruction in languages not regularly offered by Department of Foreign Languages; offered if and when sufficient demand exists and instructors available. Although credit earned in these courses may be used to satisfy foreign language requirements for degrees, students should be aware of two important points: (1) foreign language requirement for degrees in College of Arts and Sciences specifies that all twelve semester hours (or six for some professional degrees) must be in same language; (2) unless demand is sufficient and unless teachers are available, the University cannot offer enough courses to enable student to meet these requirements.

2701-2702. Special Studies in Modern Foreign Languages. (3, 3). Continuation of Language 1701-1702. Offered provided instructor is available and there is sufficient student enrollment.

E120 FRENCH (FREN)

1101. Elementary French. (3). Elements of grammar and pronunciation; reading of simple selections.

1102. Elementary French. (3). Reading selections of increasing difficulty. PREREQUISITE: FREN 1101 or equivalent.

2201. Intermediate French. (3). Comprehensive review of French grammar, exercises in writing, and readings in French literature and culture. PREREQUISITE: FREN 1102 or the equivalent.

2202. Intermediate French. (3). More advanced readings. PREREQUISITE: FREN 2201 or equivalent.

3301. Conversation and Composition. (3). PREREQUISITE: FREN 2202 or equivalent.

3302. Conversation and Composition. (3). PREREQUISITE: FREN 3301 or permission of instructor.

3401. French Civilization. (3). Culture of France as reflected in its history, social institutions, art, and music. Recommended for Foreign Language, liberal arts, and International Business majors.

3411. Readings in French Literature. (3). Selections from origins to present time. Emphasis on textual analysis. PREREQUISITE: FREN 3301 recommended.

3791. French for Practical Affairs. (3). Introduction to French business terminology and forms of correspondence with regular readings of business, commercial and technical publications. PREREQUISITE: FREN 3301 recommended.

3792. French for Practical Affairs. (3). Continuation of French 3791. PREREQUISITE: FREN 3791 or equivalent.

4301-6301. French Phonetics. (3). Theory and practice of French sounds; especially recommended for teachers of French. PREREQUISITE: three years of college French or permission of instructor.

4305-6305. French Stylistics. (3). Translations of English prose into French; emphasis on style and grammar. Recommended for all French majors. PREREQUISITE: FREN 3302 or permission of instructor.

4306-6306. Applied French Linguistics. (3). (4501). Current research in linguistics, psycholinguistics and sociolinguistics and their contribution to second language teaching and second-language learning.

4411. Literatura Bofora 1600. (3). Survey of representative masterpieces of Middle Ages and Renaissance. Readings from Middle Ages include *La Chanson de Roland*, *Vyain, Iais* of Marie de France, poetry of Villon, and selections from *chroniques*. Readings from Renaissance include selections from *Gargantua et Pantagruel*, *Essais* of Montaigne, *Defense et Illustration de la langue française*, and poetry of Marot, Scève, du Bellay, and Ronsard.

4412. The Seventeenth Century. (3). (3421, 3422). Survey of classical literature; emphasis on theatre of Corneille, Moliere, and Racine and their relationship to critical theories of Boileau. Selected readings from Mme de la Fayette, La Fontaine, Mme de Sevigne, La Bruyere, and La Rochefoucauld.

4431-6431. The Nineteenth Century French Novel. (3). French novel from Revolution to twentieth century, treating movements of Romanticism, Realism, and Naturalism as reflected in works of such authors as Balzac, Stendhal, Flaubert, and Zola.

4432-6432. The Twentieth Century French Novel. (3). Survey of twentieth-century French novelists including Proust, Gide, Mauriac, Malraux, Sartre, Camus, Robbe-Grillet.

4451-6451. The Nineteenth Century French Drama. (3). French Drama from 1800 to 1897, including Hugo, Vigny, Musset, Scribe, Augier, Labiche, Dumas, Crel, Becque, Maeterlinck, and Rostand.

4471-6471. Nineteenth Century Poetry. (3). French poetry from Lamartine to Mallarme.

4791. Special Studies in French Literature. (3). Topics in French literature. May be repeated for maximum of 6 hours credit. PREREQUISITE: permission of the chairman and instructor.

4701-6701. French for Reading Knowledge I. (3). Introduction to reading French. Intensive drill in recognizing and interpreting grammatical structures, especially those peculiar to scholarly written language. Emphasis on vocabulary building and on determining the meaning of words not previously encountered. Reading of texts in French at sight or after preparation. No previous knowledge of French required. *Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.*

4702-6702. French for Reading Knowledge II. (3). Further work in recognizing and interpreting grammatical structures. Reading of specialized scholarly texts. *Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.*

E130 GERMAN (GERM)

1101. Elementary German. (3). Elements of grammar and pronunciation; reading of simple selections. (Sections using audio-visual methods also offered.)

1102. Elementary German. (3). Reading selections of increasing difficulty. (Sections using audio-visual methods also offered.) PREREQUISITE: GERM 1101 or equivalent.

2201. Intermediate German. (3). Comprehensive review of German grammar, exercises in writing, and readings in German literature and culture. PREREQUISITE: GERM 1102 or equivalent.

2202. Intermediate German. (3). 2201, More advanced readings. PREREQUISITE: GERM 2201 or equivalent.

2203. Scientific German. (3). A continuation of 2201, with readings in science areas. PREREQUISITE: GERM 2201 or equivalent.

3301. Conversation and Composition. (3). PREREQUISITE: GERM 2202 or equivalent.

3302. Conversation and Composition. (3). PREREQUISITE: GERM 2202 or equivalent.

3411. Introduction to German Literature and Culture I. (3). From beginnings to late eighteenth century. PREREQUISITE: GERM 2202 or equivalent.

3412. Introduction to German Literature and Culture. II. (3). From late eighteenth century to modern period. PREREQUISITE: GERM 2202 or equivalent.

3791. German for Commerce. (3). Introduction to German business terminology and forms of correspondence; regular readings of business, commercial and technical publications. PREREQUISITE: GERM 2202 or equivalent.

3792. German for Commerce. (3). PREREQUISITE: GERM 3791.

4443-6443. Major German Writers of the Twentieth Century. (3). Selected works of Hesse, Thomas Mann, Kafka, Frisch, Duerrenmatt, Brecht, and Boell. PREREQUISITE: two courses from the group GERM 3301, 3302, 3411, 3412; or permission of instructor.

4445-6445. The Age of Goethe. (3). Development of German Classicism. Reading of major works of Goethe and Schiller. Selected readings from other important writers of period. PREREQUISITE: two courses from the group GERM 3301, 3302, 3411, 3412; or permission of instructor.

4451-6451. The German Drama. (3). Survey of dramatic literature from sixteenth to twentieth centuries; readings from Reformation, Baroque, Enlightenment, *Sturm und Drang*, Classicism, Romanticism, Realism, and modern period. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411, 3412; or permission of instructor.

4465. German Narrative Prose. (3). Reading of major prose writings from Romanticism to present. Emphasis on the *Novelle*. PREREQUISITES: one course from the group GERM 3301, 3302, 3410, 3411, 3412; or permission of instructor.

4501. Applied German Linguistics. (3). Application of modern linguistic theories to learning German. PREREQUISITES: two courses from the group GERM 3301, 3410, 3411, 3412; or permission of instructor.

4611. The German Language: Development and Structure. (3). German language in its various stages of development. PREREQUISITE: GERM 3301 or 3302; or permission of instructor.

4791. Special Studies in German Language or Literature. (3). Topics in German language or literature. May be taken twice for credit. PREREQUISITE: permission of chairman and instructor.

4701-6701. German for Reading Knowledge I. (3). Introduction to reading of German. Intensive drill in recognizing and interpreting grammatical structures, especially those peculiar to scholarly written language. Emphasis on vocabulary building and on determining meaning of words not previously encountered. Reading of texts in German at sight or after preparation. No previous knowledge of German required. *Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.*

4702-6702. German for Reading Knowledge II. (3). Further work in recognizing and interpreting grammatical structures. Reading of specialized scholarly texts. *Does not fulfill any part of undergraduate language requirement and cannot be applied toward major.*

E160 ITALIAN (ITAL)

1101. Elementary Italian. (3). Elements of grammar and pronunciation; reading of simple selections.

1102. Elementary Italian. (3). Selections of increasing difficulty. PREREQUISITE: ITAL 1101 or equivalent.

2201. Intermediate Italian. (3). Comprehensive review of Italian grammar, exercises in writing, and reading in Italian literature and culture. PREREQUISITE: ITAL 1102 or equivalent.

2202. Intermediate Italian. (3). More advanced readings. PREREQUISITE: ITAL 2201 or equivalent.

3411. Survey of Italian Literature. (3). Development of Florentine dialect as literary language of Italy. Representative writers from thirteenth to eighteenth century. Dante. PREREQUISITE: ITAL 2202 or permission of the instructor.

3412. Survey of Italian Literature. (3). Outstanding writers of eighteenth, nineteenth, and twentieth centuries; attention to Goldoni, Alfieri, Leopardi, Manzoni, Pirandello, and Benedetto Croce. PREREQUISITE: ITAL 3411 or permission of instructor.

4421. The Sixteenth Century. (3). Literature of Italian Renaissance: Ariosto, Machiavelli, Cellini, Sasso, and others.

E165 JAPANESE (JAPN)

1101. Elementary Japanese I. (3). Principles of pronunciation, everyday expressions, basic sentence patterns through oral practice; writing and reading using the Roman alphabet.

1102. Elementary Japanese II. (3). Continued study of sentence patterns through oral and (Romanized) written practice; the *katakana* and *hiragana* syllabaries.

2201. Intermediate Japanese I. (3). Continued study of sentence patterns through oral and written practice; introduction to the Japanese writing system, with approximately 250 *kanji* and their compounds in readings and written practice.

2201. Intermediate Japanese II. (3). Continued study of sentence patterns; conversation; additional *kanji* to a total of approximately 500; readings.

E190 RUSSIAN (RUSS)

1101. Elementary Russian. (3). Elements of grammar and pronunciation; reading of simple selections.

1102. Elementary Russian. (3). Selections of increasing difficulty. PREREQUISITE: RUSS 1101 or equivalent.

2201. Intermediate Russian. (3). Comprehensive review of Russian grammar, exercises in writing, and readings in Russian literature and culture. PREREQUISITE: RUSS 1102 or equivalent.

2202. Intermediate Russian. (3). More advanced readings. PREREQUISITE: RUSS 2201 or equivalent.

3301. Conversation and Composition. (3). PREREQUISITE: RUSS 2202 or equivalent.

3302. Conversation and Composition. (3). PREREQUISITE: RUSS 3301 or permission of instructor.

3411. Survey of Russian Literature. (3). From earliest chronicles, folktales, and legends through classical period to end of eighteenth century.

3412. Survey of Russian Literature. (3). From beginning of nineteenth century to Soviet period. Authors include Pushkin, Gogol, Lermontov, Turgenev, Doestoevsky, Tolstoy, and Chekhov.

3441. Russian Literature of the Nineteenth Century. (3). Introduction to authors who herald *Golden Age* of Russian Literature; representative works from Pushkin, Lermontov, Gogol, and Turgenev.

3442. Russian Literature of the Nineteenth Century. (3). Readings in representative works of Doestoevsky, Tolstoy, Chekhov, and Gorki.

3443. Russian Literature of the Twentieth Century. (3). Introduction to works of Bunin, Zamyatin, Bely, A. Tolstoy, Scholokhov, and Solzhenitsyn.

3444. Russian Literature of the Twentieth Century. (3). Introduction to works which herald *Silver Age* of Russian poetry. Authors include Blok, Brusov, Akhmatova, Zvetaya and Mandelstam.

3611. Survey of Russian Civilization. (1). (COLI 3611). Russia and its people; highlights of Russian civilization as revealed in the fields of literature, music, painting, and architecture. *May not be used for Russian language credit.*

4309. The Art of Translating Russian. (3). Translations of material from Russian to English in approved content area. PREREQUISITE: RUSS 2202 or equivalent.

E200 SPANISH (SPAN)

1101. Elementary Spanish. (3). Elements of grammar and pronunciation; reading of simple selections.

1102. Elementary Spanish. (3). PREREQUISITE: SPAN 1101 or the equivalent.

2201. Intermediate Spanish. (3). Comprehensive review of Spanish grammar, exercises in writing, conversation, and readings in Hispanic literature and culture. PREREQUISITE: SPAN 1102 or equivalent.

2202. Intermediate Spanish. (3). More advanced readings. PREREQUISITE: SPAN 2201 or equivalent.

3300. Conversation and Composition. (3). (3301, 3302). Practice in use of the language. May be repeated for maximum of 6 credit hours. PREREQUISITE: SPAN 2202 or equivalent.

3410. Spanish Literature and Civilization. (3). Masterpieces of Spanish Literature coordinated with discussions of civilization and history. PREREQUISITE: SPAN 2202 or equivalent.

3510. Spanish American Literature and Civilization. (3). Masterpieces of Spanish American Literature coordinated with discussions of civilization and history. PREREQUISITE: SPAN 2202 or equivalent.

3791. Spanish for Commerce. (3). Introduction of Spanish business terminology and forms of correspondence; regular readings of business, commercial and technical publications. PREREQUISITE: SPAN 2202 or equivalent.

3792. Spanish for Commerce. (3). Continuation of Spanish 3791. PREREQUISITE: SPAN 3791.

4301-6301. Spanish Phonology. (3). Principles of analysis of the sound system of human language; general sound system (phonetics) of Spanish; distinctive features (phonemics) of Spanish; and phonemic contrastive analysis of sound systems of Spanish and English.

4302-6302. Advanced Grammar. (3). Thorough and systematic presentation of Spanish grammar. Recommended for all Spanish majors. PREREQUISITE: SPAN 3301 and 3302.

4304-6304. Evolution of Spanish. (3). General history of Spanish language, based on political and cultural history of Spain and Spanish America. History of sound system, grammatical structures, word borrowings, and changes in meaning.

4305-6305. Spanish American Dialectology. (3). Fundamental notations of language variation, regional and social varieties and linguistic demography of general features of Latin American Spanish with respect to phonology, morphology, syntax, and semantics.

4306-6306. Applied Spanish Linguistics. (3). (4501) Current research in linguistics, psycholinguistics and sociolinguistics and their contribution to second-language teaching and second-language learning.

4420-6420. Medieval Spanish Literature. (3). Reading of Old Spanish. Medieval Spanish literature instructor.

4421-6421. The Golden Age. (3). Spanish lyric poetry and drama of sixteenth and seventeenth centuries. PREREQUISITES: SPAN 3411 and 3412, or permission of instructor.

4423-6423. Cervantes. (3). *Don Quixote* and the *Novelas ejemplares*.

4430-6430. 18th and 19th Century Spanish Literature. (3). Romantic and post-romantic poetry and drama. *Costumbrismo* and rise of regional novel, realistic novel, and naturalistic novel.

4431-6431. Contemporary Spanish Prose. (3). Spanish prose from Generation of 1898 to present. PREREQUISITES: SPAN 3411 and 3412, or permission of instructor.

4432-6432. Contemporary Spanish Poetry and Drama. (3). Spanish poetry and drama from Generation of 1898 to present. PREREQUISITES: SPAN 3411 and 3412, or permission of instructor.

4532-6532. Spanish American Drama. (3). Development of the drama in Spanish America; emphasis on twentieth century. PREREQUISITES: SPAN 3411-3412 or one of SPAN 3511, 3512.

4561-6561. Spanish American Prose Fiction I. (3). Development of novel and short story in Spanish America from beginnings through Mexican Revolution. PREREQUISITE: SPAN 3511.

4562-6562. Spanish American Prose Fiction II. (3). Spanish American novel and short story from Mexican Revolution to present. PREREQUISITE: SPAN 3512.

4791-6791. Special Studies in Hispanic Literature. (3). Topics in Hispanic Literature. May be repeated for maximum of 6 hours credit. PREREQUISITE: permission of chairman and instructor.

GEOGRAPHY AND PLANNING

PROFESSOR W. THEODORE MEALOR,

Chairman

Room 107, Johnson Hall

The prerequisite for all 3000 and 4000 level courses is either junior standing (a minimum of 55 semester hours credit) or the permission of the instructor.

E220 GEOGRAPHY (GEOG)

1101. Introduction to Earth Science: Weather and Climate. (4). Earth-sun and earth-moon relations, oceans and their movements, weather, and climate. *Three lecture, two laboratory hours per week.*

1102. Introduction to Earth Science: Landforms. (4). Maps as basic tool in understanding earth phenomena, landforms, and aspects of local physical geography. *Three lecture, two laboratory hours per week.*

1401. Introduction to Human Geography. (3). Geographical aspects of human behavior. Focuses on distributional patterns and interactions of such cultural characteristics as language, religion, politics, and economics.

2301. Survey of Developing World Regions. (3). Survey of economic, cultural, and physical traits characteristic of developing nations; focuses on geographic problems and aspects of development of "third world" nations in Latin America, Africa, and Asia.

2311. Survey of Industrialized World Regions. (3). Emphasis on economic, cultural, and physical traits characteristic of industrialized nations; focuses on geographic aspects that give character to North America, Europe, USSR, Japan, Australia, and New Zealand.

3200. Peoples and Cultures of the World (Same as ANTH 3200). (3). Major ethnographic areas and selected cultures of world.

3221. Principles of Conservation. (3). (3411). Current problems and responsibilities relating to conservation of soil, minerals, forests, water, wild life, and natural beauty of earth.

3430. Economic Geography. (3). (3201, 3211). Spatial characteristics and distribution of economic activities

3451. Geographic Elements in Urban and Regional Planning. (3). Introduction to regional and urban planning, emphasizing spatial relationships of physical, economic, and cultural phenomena necessary in planning process.

3501. Map Intelligence. (3). Comprehensive study of maps as geographic tools that enable user to gain knowledge of earth through map reading and map interpretation and to make intelligent use of such map information.

3502. Map Projections: Analysis and Construction. (3). Analysis and construction of select number of projections for depicting earth's curved surface as transformed to plane surface to provide accurate framework for displaying particular distribution on map.

3503. Map Design. (3). Introduction to cartographic theory, planning and construction of maps.

4111-6111. Earth Science I. The Atmosphere. (3). Physical processes underlying behavior and responses of atmosphere and application to understanding of relationship of man to this important element of his environment.

4121-6121. Earth Science II. The Earth. (3). Land forms, their changes, and their uses to man.

4122-6122. Earth Science III. The Soil. (3). Processes and dynamics of soil profile development. Major models of soil development examined and applied to soil genesis in Tennessee. Application of soil techniques to archaeology, planning, earth sciences, and soil conservation and erosion problems. Emphasis on field and laboratory techniques with field work in soil mapping and soil taxonomy. *Two lecture, two laboratory hours per week.*

4131-6131. Earth Science IV. The Oceans. (3). Analytical study of the oceans to include their physical, chemical, and biological qualities; their movements, resources, climatic influences, and importance for transportation.

4201-6201. Urbanization and Environment. (3). Ways man has changed natural environment by urbanization and how physical features and processes influence development and function of cities.

4203-6203. Site Analysis. (3). Analysis of site characteristics and suitability for land development. Emphasis on environmental problems and human use as they relate to site selection and development.

4211-6211. Climatology. (3). Systematic/regional study of climate. Emphasis on controlling factors in climate, problems in the classification of climatic types, world distributional patterns, and methods of handling climatic data.

4231-6231. Water Resources. (3). Hydrologic processes and their application to needs of cities, industry, agriculture, and recreation.

4251-6251. Environmental Threats to Human Survival. (3). Survey of environmental threats, some of which may threaten survival of human species. Spectrum of threats ranges from planet-wide climatic changes and potential changes in earth-sun relationships to more immediate threats such as inadequate food production, local disasters, and nuclear contamination.

4304-6304. Geography of Europe. (3). Geographic analysis of lands west of Iron Curtain.

4305-6305. Geography of the USSR. (3). Regional analysis of Soviet Union and its satellites.

4306-6306. Geography of Asia. (3). Significance of regional differences in Japan, China, and India, and brief survey of remaining areas.

4313-6313. Geography of the United States and Canada. (3). (3313). Physical, cultural, and economic characteristics of United States and Canada.

4316-6316. Geography of the South. (3). Selected regions in South; emphasis on changes and trends in cultural-physical complex.

4324-6324. Geography of Middle America. (3). Regions and resources of Mexico, Central America, and West Indies related to present and potential economic development. *Students who have received credit for GEOG 3314 or 4314 will not be allowed credit for GEOG 4324.*

4325-6325. Geography of South America. (3). Regional economies, resources, and trade in the continent, with stress on changing significance of landscape related to national and national problems. *Students who have received credit for GEOG 3315 or 4315 will not be allowed credit for GEOG 4325.*

4421-6421. Political Geography. (3). Introduction to spatial distribution, characteristics, and interaction of political processes and systems. Individual student study of selected problems required.

4431-6431. Urban Geography. (3). Allocation of land for urban uses; adjustments and adaptations to existing physical phenomena; patterns, functions, and forms of specific urban land areas, and some continuous problems of urban development and growth.

4434-6434. Land Utilization and Settlement. (3). Characteristic ways that man utilizes land. Emphasis on effect of urban growth on settlements and landholding patterns in rural areas.

4442-6442. Geography of Business and Industrial Location. (3). Geography of retailing, wholesaling, and manufacturing; emphasis on locational analysis of selected business enterprises.

4443-6443. Transportation and Urbanization. (3). Various transportation modes and networks and impact they have on land use and contemporary development problems.

4453-6453. Geography of Food and Agriculture. (3). Ability of earth-surface areas to produce food necessary to sustain rapidly growing world population. Includes environmental constraints which tend to limit food production and produce food supply crises.

4500-6500. Computer Applications for Spatial Analysis. (1). Use of computers as tool for spatial problem solving, incorporating computer language and operating systems for micro and large computers.

4502-6502. Computer Mapping. (3). Use of computer mapping programs as effective techniques for visual presentation of wide variety of data.

4503-6503. Map Production. (3). Scribing, color separation, printing, and darkroom processes.

4510-6510. Aerial Photo Interpretation. (3). (Same as GEOL 4510) Elements and steps involved in interpreting, measuring, and mapping of images appearing on aerial photographs.

4511-6511. Remote Sensing of the Environment. (3). (Same as GEOL 4512) Survey of theory and application of using color, infrared, thermal, and radar images generated from aircraft and satellites for geographic, environmental, and planning purposes.

4521-6521. Quantitative Methods. (3). Introduction to quantitative methods in spatial analysis.

4531-6531. Field Methods. (3). Basic methods of geographic analysis used in classifying, analyzing and reporting field-generated data including field mapping, sampling procedures, questionnaires, and archival and public document research. *One and one-half lecture, three laboratory hours per week.*

4621. Special Problems. (1-3). Student, under faculty supervision, studies in-depth particular geographic topic. Repeatable with change in content to maximum of 3 semester hours.

4700-6700. Geography Internship. (1-9). Experience working with agency in which geographic knowledge can be utilized. Repeatable to maximum of 9 semester hours.

GEOLOGY

PROFESSOR PHIL DEBOO, *Chairman*

404 J. M. Smith Hall

E235 GEOLOGY (GEOL)

1101. Physical Geology. (4). Earth's composition and structure and processes which affect it. Emphasis on crust of earth and processes which continually modify surface. *Three lecture, two laboratory hours per week.*

1201. Historical Geology. (4). History of earth and its life as interpreted from rock and fossil records. Principles of interpreting records and succession of geologic and biologic events which led to modern world. *Three lecture, two laboratory hours per week.* PREREQUISITE: GEOL 1101.

3100. Life of the Past. (3). Fossil record of the history of life and consideration of concepts used in interpreting the significance of that record. Primarily for general student. *Credit will not be given toward the degree requirements for a major in geology.*

3211. Introduction to Paleontology. (4). Fossil invertebrate animals and their importance in interpretation of ancient environments, evolution, and geologic time. *Three lecture, two laboratory hours per week.* PREREQUISITES: GEOL 1101, 1201.

3301. Mineralogy. (4). Crystallography; physico-chemical properties, classification and genesis of minerals. Hand specimen identification of important rock-forming and economic minerals. *Two lecture hours, four laboratory hours per week.* PREREQUISITES: GEOL 1101, CHEM 1111. COREQUISITE: CHEM 1112.

3302. Optical Mineralogy. (3). Crystal optics and use of the polarizing microscope; powder diffraction and selected analytical techniques. *One lecture hour, two laboratory hours per week.* PREREQUISITE: GEOL 3301.

3303. Igneous and Metamorphic Petrology. (3). Study and identification of igneous and metamorphic rocks. Emphasis placed on hand specimen identification with supplementary thin section examination. *One lecture hour, two laboratory hours per week.* PREREQUISITE: GEOL 3302.

3512. Structural Geology. (4). Rock structures, origin, criteria for recognition and solution of structural problems. *Two lecture, four laboratory hours per week.* PREREQUISITE: GEOL 1201, MATH 1321; or consent of instructor.

3712. Sedimentation and Stratigraphy. (4). Origin and classification of sedimentary rocks and mutual relationship of sedimentary rock bodies both geographically and through geologic time. Lecture emphasizes comparison of modern depositional systems with their ancient counterparts. Laboratory emphasizes hand specimen analysis and preparation of geologic maps. *Three lecture, two laboratory hours per week.* PREREQUISITE: GEOL 1201.

3802. Introduction to Oceanography. (3). Origin, water circulation, shoreline, and deep water characteristics of oceans; role in evaluation and history of earth; marine life and its ecology.

4100-6100. Petroleum Geology. (3). Application of geologic principles to search for economic accumulations of oil and gas.

Emphasis on prospect selection via subsurface techniques. *Two lecture, two laboratory hours per week.*

4202-6202. Geomorphology. (3). Theories of landscape development, consideration of processes active at earth's surface; weathering, pedogenic, mass-wasting, groundwater, fluvial, eolian, shoreline and glacial.

4301-6301. Geologic Data Analysis. (3). Use of computer and teletype in data file construction and management, use of file with various programs, and use of statistical tests, regression lines, maps, and classification of data sets with aid of computer. *Two lecture, two laboratory hours per week.* PREREQUISITE: senior standing or consent of instructor.

4312-6312. Introduction to X-Ray Diffraction. (3). Basic principles of x-ray diffraction. Application to crystallographic and mineralogical problems including mineral identification by powder method. *One lecture, four laboratory hours per week.* PREREQUISITE: permission of instructor.

4322-6322. Petrography. (4). Classification, description, and thin-section study of rocks by means of petrographic microscope. *Three lecture, two laboratory hours per week.* PREREQUISITE: GEOL 4121.

4332-6332. Introduction to Geochemistry. (3). Geological and chemical processes which govern or control migration and distribution of elements and atomic species of earth in space and time. *Three lecture hours per week.* PREREQUISITE: GEOL 2312.

4342-6342. Paleogeology and Biostratigraphy. (3). (4421). Zonal distribution, facies analysis, and paleogeology of fossils and their application to problems of earth history and depositional environments. Emphasis on fossil fuel bearing sediments. PREREQUISITES: GEOL 3211, 3712.

4440-6440. Seismology. (3). Seismic wave propagation is developed. Other introductory topics to include earthquake source parameters, surface wave generation, fault plane solutions and global seismicity. *Two lecture, two laboratory hours per week.* PREREQUISITE: consent of instructor.

4510-6510. Aerial Photo Interpretation. (3). (Same as GEOG 4510). Elements and steps involved in interpreting, measuring and mapping images appearing on aerial photographs.

4511-6511. Economic Mineral Deposits. (3). Origin, occurrence, and composition of metallic and non-metallic mineral deposits. *Three lecture hours per week.* PREREQUISITES: GEOL 2311, 2312, and 3512.

4512-6512. Remote Sensing of the Environment. (3). (Same as GEOG 4511). Theory and application of using color, infrared, thermal and radar images generated from aircraft and satellites for geographic, geologic, environmental and planning purposes.

4601-6601. Engineering Geology. (3). Application of principles and knowledge of geology to engineering practice, especially in highways, construction, dam sites, foundations, water resources, and location of certain engineering materials. PREREQUISITE: consent of instructor.

4622-6622. Geology Field Camp. (6). Preparation of structural and lithologic maps in prescribed geologic areas using topographic maps and aerial photographs. Instruments used are the alidade and the Brunton compass. Offered in summer school only. PREREQUISITES: GEOL 2312, 3512, and 3712.

4632-6632. Applied Geophysics. (4). Survey of geophysical methods; emphasizes seismic and electrical investigations employed in engineering practice. Use of resistivity, seismograph and magnetometer in the investigation of subsurface materials. Location of sand, gravel, and subsurface water discussed and supplemented by field measurements with these instruments. *Two lecture, four laboratory hours per week.*

4642-6642. Advanced Structural Geology. (3). Analysis of crustal structures and observed patterns of stress and strain in rocks; mechanical interpretation of geologic structures; introduction to intra-crystalline processes and ductile behavior of geologic materials. PREREQUISITES: GEOL 3512, MATH 1321.

4652-6652. Introduction to Geophysics. (3). Fundamental topics: earth's age and thermal state; main gravity and magnetic fields; dynamic models of earth's interior; comparison of terrestrial planets. PREREQUISITES: PHYS 2111, MATH 1321.

4661-6661. Ground Water Geology. (3). Ground water occurrence and movement in geologic environment. Flow theory, water quality, contamination, exploration and well design. Application for ground water supply development and aquifer protection. *Three lecture hours per week.* PREREQUISITE: GEOL 1101, 3712, or consent of instructor.

4701-6701. Spring Field Trip. (1-2). Conducted field trips during spring vacation. About 30 hours of field work follow 2-4 hours of lectures. Open to non-majors. Among areas which may be included are Quachita-Arbuckle-Wichita Mountains of Oklahoma, Ouachita, Ozark dome and adjacent mineral districts; central and southern Appalachians; and Gulf Coastal Plain. Check *Schedule of Classes* for specific location. NOTE: May be repeated three times when location varies. A total of no more than 8 hours credit may be earned. *Dates, hours and credits to be arranged.* PREREQUISITE: consent of instructor.

4721. Investigations in Geology. (1-3). Individual or group work on topics of current interest. PREREQUISITE: consent of instructor.

4722. Investigations in Geophysics. (1-3). Individual or group work on topics of current interest in the broad field of geophysics. PREREQUISITE: consent of instructor.

4731. Senior Thesis. (1-3). Original study, on subject of geological significance, to be carried on independently by student with faculty supervision. PREREQUISITE: senior standing in Geology.

HISTORY

PROFESSOR

JOSEPH M. HAWES, *Chairman*

Room 100, Mitchell Hall

All candidates for graduation at Memphis State University are required to complete History 2601 and 2602.

E240 HISTORY (HIST)

1301. The Development of World Civilization I. (3). Especially recommended for freshmen. Traces forms of civilization from ancient beginnings through seventeenth century.

1302. The Development of World Civilization II. (3). Especially recommended for freshmen. Traces forms of civilization from beginning of the eighteenth century to present.

2601. The United States to 1877. (3). United States from discovery to end of political reconstruction.

2602. The United States since 1877. (3). United States from 1877 to present.

3010. Special Issues in History. (3). May be repeated for a maximum of nine hours when the topic varies.

3021. History of the Christian Church. (3). From its New Testament origins to 20th century.

3031. History of Technology. (3). Technological development and its relationship to its historical context from earliest times to present.

3121. England Before 1714. (3). Political, constitutional, cultural, social, and economic development of England from coming of Anglo-Saxons until Hanoverian accession in 1714.

3122. England Since 1714. (3). Development of England's democratic government, considering economic, social, intellectual, diplomatic, and imperial affairs.

3211. Colonial Latin America. (3). Political, economic, social and cultural development in Latin America from pre-conquest era to 1808.

3212. The Latin American Nations. (3). Major political, economic, and social trends in Latin America since 1808. Emphasis on Argentina, Brazil, Chile, and Mexico.

3271. The Middle East. (3). Political, diplomatic, social and religious developments in Middle East from 1800 to present.

3290. Traditional Asia. (3). Comparative survey of civilizations in India, China, Japan, and Southeast Asia, from their beginnings through the 18th century.

3291. Modern Asia. (3). Asia from 1800 to present, focusing on Asian reactions to colonialism, and rise of modern nation states in India, Japan, China, and Southeast Asia.

3301. Early Modern Europe, 1500-1800. (3).

3302. Modern Europe, 1800 to Present. (3).

3505. Cultural and Intellectual History of Europe I. (3). (4505). Topics in history of European culture and thought from classical Greece through high Middle Ages.

3506. Cultural and Intellectual History of Europe II. (3). (4506). Topics in history of European culture and thought from late Middle Ages to twentieth century.

3803. American Diplomatic History. (3). Though including the 18th and 19th centuries, course concentrates on 20th. Emphasizes relationship between foreign policy and domestic forces. *Note: Students who have received credit for HIST 3801 or 3802 will not be allowed credit for HIST 3803.*

3823. Economic History of the United States. (3). *Note: Students who have received credit for HIST 3821 or 3822 will not be allowed credit for HIST 3823.*

3840. United States Constitutional History. (3). Constitutional developments from colonial period to present; emphasis on English heritage, constitutional antecedents of revolutionary era, origins and growth of federal system under Constitution of 1787, and evolution of modern constitutional government in United States.

3863. Social and Intellectual History of the United States. (3). *Note: Students who have received credit for HIST 3861 or 3862 will not be allowed credit for HIST 3863.*

3900. History of Tennessee. (3). Political, economic, and social development of Tennessee from earliest times.

3920. The Old South. (3). Southern institutions prior to outbreak of Civil War.

3930. The New South. (3). South from Civil War to present.

3940. The West. (3). Significance of frontier in development of United States from Revolutionary period to 1890.

4003. The Philosophy of History. (3). History as a distinct discipline. Thought of leading Western philosophers of history about nature of history in its two senses — history as actuality and history as thought about actuality.

4010-6010. Topics in History. (3). Intensive study of selected topics in history. Topics announced in *Schedule of Classes*.

4012. Directed Readings, Honors. (3). Under the direction of faculty member, student reads about particular topic or topics. **PREREQUISITE:** admission to Honors Program.

4014. Directed Readings. (3). Readings on particular topic in history under supervision of member of faculty.

4020-6020. Internship in History. (3-12). Supervised internships working with various governmental agencies, private foundations or business of interest to historians. May be repeated for up to 12 hours credit. **Prerequisite:** permission of department.

4070. Seminar in Historical Research. (3). Research techniques and methods by focusing on particular topics.

4126-6126. Victorian and Edwardian England. (3). Social, political, and cultural adjustments of England to experience of industrialization in 19th and early 20th centuries.

4146-6145. History of Modern Germany. (3). Germany from origins of unification movement in Napoleonic Era through Second World War.

4160-6160. Russia to 1917. (3). Russia from earliest times to 1917; emphasis on the rise of serfdom and autocracy and evolution of revolutionary movement.

4162-6162. History of the Soviet Union. (3). Detailed study of 1917 Revolution and major developments in government, economy, cultural and social life, and international affairs which followed.

4163-6163. History of Socialism and Marxism. (3). Socialist and Marxist thought and rise of socialist and Marxist social and political movements in Europe, Russia and Far East. Unique social, economic, and political conditions which gave rise to experimentation with and application of Marxism.

4200-6200. History of Spain. (3). (3200). Spanish institutions, culture and politics from ancient times to present.

4240-6240. History of Mexico. (3). Political, economic, social, and cultural development of Mexico from ancient times to present.

4250-6260. History of Brazil. (3). Political, economic, social, and cultural development of Brazil from early times to the present.

4260-6260. The World Since 1945. (3). Global ideological economic and political developments since World War II. Emphasizes rising affluence of industrial free market, movement of former colonies to independence, and growth in diversity among Soviet bloc nations.

4281-6281. Africa South of the Sahara. (3). Emphasis on black Africa in nineteenth and twentieth centuries. Age of imperialism and impact of West on Africa, colonial policies of European powers; rise of nationalist movements; problems of newly independent nations; role of African countries in world affairs.

4282-6282. The History of North Africa. (3). Emphasis on nineteenth and twentieth centuries. Extension of European influence and control; rise of nationalist movements; role of these areas in world affairs.

4283-6283. The History of Southern Africa. (3). European colonization and impact on African people from 1652 to date in Republic of South Africa, Rhodesia, and former High Commission territories.

4292-6292. History of Modern China, 1800 to the Present. (3).

4294-6294. History of Modern Japan, 1800 to the Present. (3).

4295-6295. Intellectual History of East Asia Since 1800. (3). Evolution of modern Chinese and Japanese thought.

4321-6321. History of Ancient Civilization I. (3). Ancient Near East and Greece through time of Alexander the Great.

4322-6322. History of Ancient Civilization II. (3). Hellenistic World and rise and fall of Roman Empire.

4361-6361. History of the Byzantine Empire. (3). Byzantine or East Roman Empire from 330 to 1453 and its influence on Slavic, Turkic, and Islamic peoples.

4371-6371. Early Middle Ages. (3). Late Roman Empire, migration period, emergence of Islamic, Byzantine, and West European cultures through period of investiture controversy.

4372-6372. The High Middle Ages. (3). Urban emergence, growth of feudal monarchy, foundations of modern political institutions, medieval universities, and intellectual fabric of scholasticism.

4380-6380. Renaissance Europe, 1300-1620. (3). Transition from medieval to early modern institutions in Europe; emphasis on urban growth, capitalism, emergent nationalism, international diplomacy, and humanism.

4390-6390. Europe in the Age of the Reformation. (3). Characteristic political, social, economic, intellectual, and cultural developments and religious conflicts of late fifteenth and sixteenth centuries.

4401-6401. Europe in the Age of the Baroque. (3). Political crises, development of monarchical absolutism, rise of modern science, and cultural synthesis in seventeenth century.

4440-6440. The Era of the French Revolution. (3). The Old Regime, origins and development of Enlightenment thought, and revolutionary and counter-revolutionary movements in 18th century Europe.

4463-6453. Europe, 1815-1914. (3). *Note: Students who have received credit for HIST 4451 or 4452 will not be allowed credit for HIST 4453.*

4461-6461. Europe, 1914-1946. (3).

4603-6503. Disease and Medicine in History. (3). How various diseases and the medical attempts to conquer them influenced economic, political, and social action throughout history. Emphasis on significant work in history of public health and speculation about importance of environmental factors in man's future.

4620-6620. Colonial America, to 1783. (3). Political development and economic, social and cultural institutions of English Colonies in America, including origins and conduct of American Revolution.

4630-6630. The New Nation, 1783-1816. (3). (4641).

4640-6640. Jacksonian America, 1816-1860. (3). (4642).

4670-6670. Civil War and Reconstruction, 1860-1877. (3). (4660).

4680-6680. Emergence of Modern America, 1877-1914. (3). United States from end of Reconstruction to outbreak of World War I.

4701-6701. The United States, 1914 to the Second World War. (3). United States from outbreak of World War I to World War II.

4702-6702. United States from the Second World War. (3). The United States from World War II to present.

4811. United States Military and Naval History. (3). Developments since colonial period; emphasis on background

and growth of national military and naval establishments, military and naval thought, difficulties accompanying modernization and assumption of global responsibilities, and problem of relationship between civilian and military-naval sectors in democracy.

4823-6823. American Labor History. (3). Historical development of labor movement in United States; emphasis on social, economic, and political trends related to labor movement.

4824-6824. Business History. (3). Historical development of business in the United States; attention to social, economic, and political trends related to American business communities.

4861-6861. History of Women in America. (3). Economic, political, social, and intellectual history of women in English American colonies and United States.

4861-6861. Parks/People/Public Policy. (3). Comparative study of history and administration of public land areas in the United States, and of American conservation.

4871-6871. United States Urban History. (3). (3871). Development of American cities, including formation of local social, economic, and political institutions, and impact of urbanization on United States.

4881-6881. Black American History. (3). Role of blacks in America from Jamestown to present.

4941-6941. History of the American Indian. (3). Role of Indian in American history.

4996. Honors Thesis. (3). Under the direction of faculty member, and with approval of the Honors Committee, student writes thesis based on research in primary and/or secondary sources. **PREREQUISITE:** admission to the Honors Program.

MATHEMATICAL SCIENCES

PROFESSOR RALPH J. FAUDREE, *Chairman*

Room 373, Dunn Mathematics
Foreign Languages Building

The Department of Mathematical Sciences offers general courses in mathematics, statistics and computer science for students in all departments of the University, with specially designed programs for the principal divisions of the University. Courses which satisfy specific graduation requirements of the several colleges may be found in the description of the degree requirements for the specific college.

The courses MATH 1000, 1100, 1211, and 1212 provide preparatory instruction, as needed, for required courses. MATH 1000 provides remedial instruction in elementary algebra as preparation for MATH 1100; and MATH 1100, Intermediate Algebra, prepares the student for MATH 1211. MATH 1211 provides preparation for MATH 1212, and MATH 1212 provides preparation for MATH 1321.

Placement tests are available to assist students in selecting a first course in mathematics.

Students may earn credit by examination in any mathematics course except MATH 1000 and MATH 1100 after obtaining permission of the department chairman and paying the appropriate fees. A form for this purpose is available in the office of the department chairman.

NOTE: A student who wishes to take a course without having had all of its prerequisites must obtain permission of the instructor and of the Chairmen of the Department of Mathematical Sciences.

E280 MATHEMATICS (MATH)

1000. Basic Mathematics. (3). Signed numbers; order of operations; variables; first degree equations; products and factors of polynomials; basic operations on algebraic fractions; ratio and proportion; first degree equations in two variables; radical expressions. **RESTRICTION:** *This course satisfies no mathematics requirement for any degree. It is offered solely as preparation for MATH 1100.* **NOTE:** No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program.

1100. Intermediate Algebra. (3). Set notation, first degree inequalities, absolute value equations and inequalities; operations on polynomials, operations on rational expressions; integral, fractional and negative exponents, operations involving radical expressions; complex numbers; quadratic equations; systems of linear equations; determinants. **RESTRICTIONS:** *This course satisfies no mathematics requirement for any degree. It is offered solely as preparation for College Algebra (MATH 1211).* **NOTE:** No more than three hours credit in MATH 1000 and 1100 may be applied toward any degree program.

1181. Concepts of Number. (3). Introduction to logic; set theory; development and applications of numeration systems; mathematical systems and algorithms. **PREREQUISITE:** Two units of high school algebra or one unit of algebra and one unit of geometry or MATH 1100.

1182. Concepts of Algebra. (3). Relations and functions; equations; exponential and logarithmic equations; introduction to matrices; probability; introduction to statistics. **PREREQUISITE:** MATH 1181.

1211. College Algebra. (3). Inequalities; quadratic equations; relations and functions; absolute value; exponential and logarithmic functions; systems of equations and inequalities; matrices; complex numbers; roots of polynomials; sequences and series; binomial expansion. **NOTE:** MATH 1211 and MATH 1213 will not satisfy a six semester hour Mathematics requirement. **PREREQUISITE:** Placement test recommended but not required. Two units of high school algebra or MATH 1100.

1212. Trigonometry. (3). Circular functions; inverse circular functions; graphs of circular and inverse functions; identities; equations; angles; trigonometric functions; solution of triangles; elementary application of vectors; trigonometric form

of complex numbers. **PREREQUISITE:** Placement test recommended but not required. **MATH 1211.** NOTE: MATH 1212 and MATH 1213 will not satisfy a six semester hour Mathematics requirement.

1213. College Algebra and Trigonometry. (3). Exponents; radicals; quadratic functions; inequalities; relations and functions; inverse, exponential and logarithmic functions; solution of algebraic systems; trigonometric functions, identities, equations and graphs; angle measurements; sum, difference, half-angle and double-angle formulas; solution of triangles; laws of sines and cosines. NOTE: MATH 1211 and MATH 1213, or MATH 1212 and MATH 1213 will not satisfy a six semester hour Mathematics requirement

1312. Elementary Calculus. (3). Introduction to concepts and methods of elementary calculus of one real variable as related to rational, exponential, and logarithmic functions; nature of derivatives; differentiation; application of derivative; nature of integration; definite integral; applications of definite integral. NOTE: Only one of the courses MATH 1312 or 1321 may be used to satisfy degree requirements. **PREREQUISITES:** MATH 1182 or 1211.

1321. Analytic Geometry and Calculus. (4). Essentials of analytic geometry of the plane with vectors; nature of derivatives; differentiation of algebraic and trigonometric functions; applications of derivatives; basic concepts of integration and definite integral with applications. (Placement test recommended but not required.) NOTE: Only one of the courses MATH 1312 or 1321 may be used to satisfy degree requirements. Students may not receive credit for both MATH 1321 and 1401. **PREREQUISITE:** MATH 1211 or 1213.

1401. Honors Calculus I. (4). Concepts and applications of differential and integral calculus presented from theoretical standpoint. NOTE: Students may not receive credit for both MATH 1401 and 1321. **PREREQUISITE:** Permission of Honors Committee.

1402. Honors Calculus II. (4). NOTE: Students may not receive credit for both MATH 1402 and 2321. **PREREQUISITE:** Permission of Honors Committee.

2171. Selected Topics in Mathematics. (1-5). Prescribed subject matter in mathematics not specifically covered elsewhere in curriculum. Repeatable by permission of department chairman. **PREREQUISITE:** permission of instructor.

2291. Mathematics of Finance. (3). Compound interest and annuities with applications; introduction to mathematics of life insurance. **PREREQUISITE:** MATH 1211.

2321. Analytic Geometry and Calculus. (4). Differentiation, integration and analytical aspects of elementary transcendental functions, techniques of integration; limits and continuity; applications of definite integral; polar coordinates. NOTE: Students may not receive credit for both MATH 2321 and 1402. **PREREQUISITE:** MATH 1212 or MATH 1213, and MATH 1321.

2322. Analytic Geometry and Calculus. (4). Indeterminate forms; improper integrals; vectors and analytic geometry in 3-space; partial differentiation; multiple integrals; infinite series. **PREREQUISITE:** MATH 2321

2401. Honors Mathematics III. (4). Introductory point set topology; elements of abstract algebra. **PREREQUISITES:** MATH 1402 and permission of Honors Committee.

2402. Honors Mathematics IV. (4). Topics in abstract algebra and real analysis. **PREREQUISITES:** MATH 2401 and permission of Honors Committee.

2581. Concepts of Geometry. (3). Introduction to idea of proof in postulational system; development of geometric relationships independent of number, including congruent triangles, similar triangles, parallelograms, and circles; applications of number in geometry including coordinate geometry, lengths, areas, and volumes. **PREREQUISITE:** MATH 1182.

2701. Discrete Structures. (3). Elementary logic; sets, relations, functions, orderings, equivalence relations, partitions; finite sets, module arithmetic; natural numbers, mathematical induction, arithmetic, strings, string programs, structured connectedness, traversals, graph algorithms.

3241. Matrix Theory. (3). Matrix algebra; elementary operations; equivalence; determinants; similarity; polynomial matrices; matrix analysis; applications. **PREREQUISITE:** MATH 1312 or 1321.

3391. Differential Equations. (3). Ordinary differential equations including series solutions. **PREREQUISITE:** MATH 2322.

4161-6161. History of Mathematics. (3). Development of mathematics from earliest times to present, problem studies; parallel reading and class reports. **PREREQUISITE:** MATH 2321 or equivalent.

4171-6171. Special Problems in Mathematics. (1-3). Directed individual study in selected area of mathematics chosen in consultation with instructor. Repeatable by permission of chairman. **PREREQUISITE:** permission of instructor.

4241-6241. Linear Algebra. (3). Systems of linear equations; matrices and elementary row operations; vector spaces and subspaces; inner product spaces; linear transformations; linear functionals; annihilators; polynomials. **PREREQUISITE:** MATH 2321 or permission of instructor.

4261-6261. Abstract Algebra. (3). Groups; homomorphisms; rings; integral domains; polynomials; fields. **PREREQUISITE:** MATH 4241 or permission of instructor.

4321-6321. Modeling and Computation. (3). The nature of mathematical modeling as viewed through examples: deterministic discrete models, state space, deterministic continuous models, stochastic models. Models will be studied using both traditional analysis and computer methods. **PREREQUISITE:** permission of instructor.

4350-6350. Advanced Calculus. (3). (3111). Real number system, functions and sequences, limits, continuity, differentiation, Riemann-Stieltjes integration, series of functions. **PREREQUISITE:** MATH 2322.

4351-6351. Advanced Calculus. (3). Integration theory; Riemann and Lebesgue integrals; partial differentiation; implicit function theorem. **PREREQUISITE:** MATH 4350 or permission of instructor.

4361-6361. Complex Variables. (3). Complex numbers; analytic functions; Cauchy-Riemann conditions; Taylor and Laurent series; integration. **PREREQUISITE:** MATH 2322.

4391-6391. Applied Mathematics. (3). Laplace transforms; Fourier series; introduction to partial differential equations. **PREREQUISITE:** MATH 3391.

4392-6392. Applied Mathematics. (3). Partial differential equations. **PREREQUISITE:** MATH 4391.

4402. Senior Honors Seminar. (3). In-depth study of one or more topics in mathematical sciences; emphasis on individual research and problem solving techniques; student writes and presents an Honors Thesis. **PREREQUISITE:** Open only to senior Honors Students in mathematical sciences with permission of instructor.

4411-6411. Topology. (3). Introductory set theory; metric spaces; topological spaces; continuous functions; separation axioms; separability and countability axioms; connectedness and compactness. **PREREQUISITE:** MATH 4350 or 4241 or permission of instructor.

4721-6721. Numerical Analysis I. (3). Derivation and application of computer-oriented, numerical methods for functional approximation, differentiation, quadrature, and solution of ordinary differential equations. **PREREQUISITE:** MATH 2321 and COMP 4001.

4722-6722. Numerical Analysis II. (3). Numerical methods for solving applied problems from calculus and differential equations. **PREREQUISITES:** MATH 2321 and COMP 4001.

4741-6741. Linear Programming Methods. (3). Theory of linear programming methods, problem formulation; convex sets; simplex and revised simplex methods; matrix games and linear programming. **PREREQUISITES:** MATH 3241 and COMP 4001.

STATISTICS (MATH)

2611. Elementary Statistics. (3). Basic statistical concepts; elementary probability theory; normal curve and applications; linear, multiple, and partial correlation; statistical inference. **PREREQUISITE:** MATH 1100 or equivalent.

4611-6611. Statistical Methods I. (3). Binomial, hypergeometric, Poisson, multinomial and normal distributions; test of hypotheses, chi-square test, t-test, F-test, etc.; non parametric tests; correlation analysis. **PREREQUISITE:** 6 hours in mathematics at level of MATH 1211 or above.

4612-6612. Statistical Methods II. (3). Introduction to analysis of variance, regression and analysis of covariance. **PREREQUISITE:** MATH 4611.

4613-6613. Introductory Statistical Theory. (3). Distributions of functions of random variables; limiting distributions; correlation and regression; Neyman-Parson Lemma; likelihood ratio tests; sufficient statistics; point estimations. **PREREQUISITE:** MATH 2321.

4631-6631. Probability. (3). Basic concepts in probability; probability models; applications. **PREREQUISITES:** 6 hours in mathematics at level of MATH 1211 or above.

4671-6671. Topics in Statistics. (1-3). Recent developments in statistical methods and applications. **PREREQUISITE:** permission of instructor.

E285 COMPUTER SCIENCE (COMP)

1000. Computer Programming I. (3). Principles of computer programming style, expression, and documentation: design specifications, algorithmic problem solving, stepwise refinement, storage variables and structures, assignments, primitive operations, and branching, coding in a high-level programming language: data typing, standard procedures and functions, subprograms and parameters, control structures, and I/O. Note: Non-computer majors should elect COMP 4001. **COREQUISITE:** MATH 1321.

2010. Computer Programming II. (3). Further principles of computer programming style, expression, and documentation: design of algorithms, analysis of algorithms, and coding in a high-level language; program structures, correctness, verification, testing, modification, maintenance, and documentation. **PREREQUISITES:** COMP 1000.

3230. Assembly Language Programming. (3). (MATH 4711). Computer machine language: opcodes, addressing modes, arithmetic and logic, program control, interrupts; symbolic coding and assembly systems: labels, mnemonics, expressions, assembler directives, assembly process; program design, coding, testing, tracing, and debugging; advanced assembler features: partial assembly, program segmentation, loading, and linking, macro instructions. **PREREQUISITE:** COMP 3420.

3420. Computer Organization. (3). Binary signals, combinational and sequential logic networks; computer structure, memory, control, processing, and I/O units; bus-structured systems, fetch-execute cycle, timing, principal instruction types and execution, addressing and accessing techniques, interrupts; standard communication codes, parity, encoders, decoders, and code conversion. **PREREQUISITE:** COMP 1000.

4001-6001. Computer Programming. (3). (MATH 4710). Algorithmic problem solving, formalization of algorithms, stepwise refinement, the BASIC and FORTRAN programming languages constants, variables, data types, arithmetic expressions, assignment statements, logical expressions, branching, iteration, subprograms and parameters, I/O, string manipulation, programming style. NOTE: Computer Science majors may not use COMP 4001 to fulfill degree requirements. **PREREQUISITE:** MATH 1211.

4002-6002. Accelerated Computer Programming. (3). Principles of computer programming style, expression, and documentation: design specifications, algorithmic problem-solving, stepwise refinement, storage variables and structures, assignments, primitive operations, and branching; coding in a high-level programming language: data typing, standard procedures and functions, subprograms and parameters, control structures, and I/O, program structures, correctness, verification, testing, modification, maintenance. NOTE: Computer Science majors may not use COMP 4002 to fulfill degree

requirements. Credit for either COMP 1000 or COMP 2010 precludes credit for COMP 4002. **PREREQUISITE:** MATH 1321.

4003-6003. Computer Organization and Assembly Language Programming. (3). Binary signals, combinational and sequential logic networks; computer structure, memory, control, processing, and I/O units; instruction types and execution. Computer machine language: symbolic coding and assembly systems' design, coding, testing, tracing, and debugging. NOTE: Computer Science majors may not use COMP 4003 to fulfill degree requirements. Credit for either COMP 3230 or COMP 3420 precludes credit for COMP 4003. **PREREQUISITE:** COMP 4002.

4040-6040. Programming Languages. (3). (MATH 4769). Comparative features, syntax, and applicability of high-level programming languages such as BASIC, FORTRAN, COBOL, ALGOL, SNOBOL, data types, and data structures, control structures and dataflow, procedures, recursion, runtime environment, string manipulation, list processing, array processing, documentation, programming style. **PREREQUISITE:** COMP 2010.

4041-6041. Introduction to Compilers. (3). Finite state recognizers, lexical scanners, symbol tables, context-free languages and pushdown automata, context-free parsing methods such as recursive descent, LR(K), precedence, LR(K), SLR(K), language translation, generation and improvement of machine independent codes, inherited and synthesized attributes, syntax-directed translationschema. **PREREQUISITES:** COMP 4040, 4150.

4081-6081. Software Development. (3-6). Program design methodologies: formal methods, dataflow diagrams, strength and coupling measures, programmer teams, organization, and management, scheduling and estimating, walk-throughs, program libraries and documentation; organization, management and development of a large-scale software project. May be repeated for a maximum of 6 hours. **PREREQUISITES:** COMP 4040, 4150.

4150-6150. Information Structure. (3). (MATH 4765). Computer data structures including stacks, queues, lists, arrays, trees, and graphs; implementation in computer memory using sequential and linked storage; basic algorithms over data structures; hash tables, sorting, searching, and merging techniques; dynamic storage allocation; coding of data structure algorithms. **PREREQUISITES:** COMP 2010, 3230.

4160-6160. File Processing. (3). Concepts of record, file, paging, blocking, compaction, database; sequential bulk storage devices, external sort/merge algorithms, algorithms for updating sequential files, linked lists, file-oriented tree structures, traversing and balancing trees, network concepts; random access bulk storage devices, algorithms and storage of inverted files, multilists, indexed sequential, and hierarchical structures, file I/O. **PREREQUISITE:** COMP 4150.

4242-6242. Introduction to Computer Graphics. (3). Characteristics of graphics I/O devices; 2D pictures, scaling, translation, rotation, and windowing; drawing histograms, simple maps, block diagrams, and flowcharts; curved lines, precision, quantization, and interpolation, plotting equations, 3D pictures, scaling, translation, rotation, and projections hidden line problem, non-Euclidean geometry, animation. **PREREQUISITES:** COMP 2010, 3230.

4270-6270. Introduction to Operating Systems. (3). Hierarchy of storage devices, I/O buffering, interrupts, channels; multiprocessing, processor and job scheduling, memory management: paging, segmentation, and virtual memory, management of asynchronous processes; interrupt procedure calls, process stateword and automatic switch instructions, semaphores concurrency; security and recovery procedures. **PREREQUISITES:** COMP 4040, 4150.

4601-6601. Introduction to Automata. (3). Formal languages, finite automata and regular expressions, regular set theory, finite automaton minimization, context-free grammars, ambiguity, Chomsky and Greiback normal forms, pushdown automata; Turing machines, undecidable problems, elementary recursive function theory, the Chomsky hierarchy of languages. **PREREQUISITE:** COMP 2010.

4715-6715. Artificial Intelligence. (3). (MATH 4715) Self-organizing systems, information theory, rational decision-making, pattern recognition, parametric and non-parametric training methods for developing pattern classifiers; problem solving; heuristic programming and problem reduction search methods. **PREREQUISITE:** COMP 2010.

4805-6805. Computer Literacy. (4). An overview of the computer and its role in the modern world. Hardware, systems, theory, applications, organizational impact, and societal issues. *Three lecture, three laboratory hours per week.* NOTE: Credit may not be applied toward any degree or concentration in Computer Science. **PREREQUISITE:** MATH 1211 or equivalent.

4901-6901. Topics in Computer Science. (1-3). (MATH 4791) Directed individual study of selected areas of computer science. May be repeated by permission for a maximum of 6 hours. **PREREQUISITE:** permission of instructor.

E280 NUCLEAR POWER OPERATIONS (MATH)

1200. Nuclear Reactor Mathematics. (3). Review of number systems; topics in algebra including solving first degree equations, factoring, logarithms, and exponents; trigonometric functions and their graphs, graphs and variation; topics in elementary probability; descriptive statistics.

1300. Calculus for Nuclear Power Applications I. (4). Trigonometric functions; identities and equations; laws of sines and cosines; conic sections with applications; function types, nature of the derivative; differentiation; applications of the derivative. **PREREQUISITE:** MATH 1200. NOTE: This course was created for and limited to students in the Nuclear Studies Program. This course is not applicable toward a major or minor in Mathematical Sciences.

2300. Calculus for Nuclear Power Applications II. (4). The indefinite integral, the definite integral; applications of the definite integral; solutions of first and second order differential equations; applications of differential equations; Laplace transforms. **PREREQUISITE:** MATH 1300. NOTE: This course

was created for and limited to students in the Nuclear Studies Program. This course is not applicable toward a major or minor in Mathematical Sciences

PHILOSOPHY

ASSOCIATE PROFESSOR

DAVID R. HILEY, *Chairman*

Room 321, Clement Humanities Building

Either PHIL 1111 or PHIL 1611 may be taken first.

E330 PHILOSOPHY (PHIL)

1111. Introduction to Philosophy. (3). Introduction to philosophy through problems arising from man's reflection on nature of world and his place and conduct in it. Readings from classical and contemporary sources.

1611. Elementary Logic. (3). Introduction to formal and informal reasoning that emphasizes logic as practical method for problem solving. PREREQUISITE: Two units of high school algebra or one unit algebra and one unit geometry or MATH 1100.

3001. Foundations of Western Philosophy: Classical Period. (3). Introduction to history of philosophy from 7th century B. C. through early Middle Ages structured around major themes that shaped classical period; attention to cultural and historical settings in which they arose and to which they contributed. Readings from philosophical and nonphilosophical sources.

3002. Foundations of Western Philosophy: Modern Period. (3). Introduction to history of philosophy from late Middle Ages through 19th century structured around major themes that shaped the modern period; attention to cultural and historical setting in which they arose and to which they contributed. Readings from philosophical and nonphilosophical sources. NOTE: While this is a continuation of PHIL 3001, it may be taken separately.

3402. American Philosophy. (3). Development of philosophy in America.

3411. Contemporary Moral Problems. (3). Such important contemporary moral issues as pornography and obscenity, capital punishment, abortion, human rights, "reverse discrimination," and civil disobedience. Underlying philosophical ideas for each issue considered and discussed.

3461. Existentialism. (3). Historical and comparative study of different existentialist writers and their relation to literature, religion, and psychology. Readings from Kierkegaard, Nietzsche, Jaspers, Heidegger, Sartre, and Marcel.

3611. Ethics. (3). Critical analysis of classical ethical theories and their application to problems of individual and society. PREREQUISITE: one course in philosophy or permission of instructor.

3612. Science, Technology and Human Values. (3). Ethical problems growing out of development of modern science and technology; of such issues as relation of science to society, dehumanization of individual, impact of technology on environment, modern warfare, etc. Specific content of course varies each semester.

3514. Biomedical Ethics. (3). Discussion of ethical problems raised by contemporary medical practices and biological innovations from standpoint of contemporary ethical theories including abortion, euthanasia, behavior modification, human experimentation and genetic engineering

3621. Intermediate Logic. (3). Symbolic logic, including propositional calculus, lower functional calculus, and related topics. PREREQUISITE: PHIL 1611 or permission of instructor.

3661. The Development of Scientific Thought. (3). Historical introduction to science and scientific thinking; with selected readings from both ancient and modern scientists and philosophers of science. PREREQUISITE: one course in philosophy or major in natural or mathematical sciences.

3662. Philosophy of Science. (3). Basic features of science. Detailed analysis of problems of scientific procedure, theory construction, and verification both in physical and social sciences. PREREQUISITE: PHIL 1611 or 3661 or permission of instructor.

3701. God and Man. (3). Major religious movements of Western world with regard to their origin, doctrines and philosophical significance. Attention to contrasting conceptions of natural and supernatural and role of religion in man's understanding of himself and his society.

3711. Philosophy of Religion. (3). Philosophical issues raised by religious experience including classical and contemporary arguments for and against existence of God, meaningfulness of religious language, and concepts of faith, evil and immortality. PREREQUISITE: PHIL 1111 or permission of instructor.

3721. Oriental Philosophy. (3). Philosophies of India, China, and Japan, with readings from primary sources of Hinduism, Jainism, Buddhism, Confucianism, Taoism, and Shintoism.

3771. Philosophy in Literature. (3). Expression of philosophical ideas in literature. Readings from philosophers, playwrights, novelists and poets.

3800. Philosophy Honors Seminar. (3). Open to all students in the Honors Program and recommended for those students working towards Honors in philosophy. Specific content will vary each time course is offered. PREREQUISITE: Admission to Honors Program and one course in philosophy

4211-6211. History of Ancient Philosophy. (3). (3211). Selected readings from primary sources, supplemented by commentary from antiquity and modern scholarship, including Pre-Socratics, Plato, Aristotle, and Hellenistic period. PREREQUISITE: PHIL 3001 or permission of instructor.

4311-6311. History of Modern Philosophy. (3). (3311). Critical survey of major philosophers of 17th and 18th century with special attention to metaphysical and epistemological issues that divided Rationalism and Empiricism. Readings from Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume, and Kant. PREREQUISITE: PHIL 3002 or permission of instructor.

4372-6372. Kant. (3). Intensive study of major philosophical works of Immanuel Kant; emphasis on *The Critique of Pure Reason* and on relation between Kant's critical philosophy and his ethics, aesthetics, and philosophy of religion. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor.

4422-6422. Recent Anglo American Philosophy. (3). Major developments in philosophy in England and United States from 1900 to present; reading from such philosophers as Russell, Moore, Ayer, Wittgenstein, James, Dewey, Lewis, Quine and other contemporary authors. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor.

4440-6440. Philosophy of the Nineteenth Century. (3). (3372). Extensive reading in representative 19th century philosophers from Fichte to Nietzsche; attention to German Idealism (especially Hegel) and reaction against it (left and right wing Hegelianism, Marx, Kierkegaard, Nietzsche) as well as utilitarianism, Darwinism, and rise of positivism. PREREQUISITE: PHIL 3002 or 4311 or permission of instructor.

4441-6441. Recent Continental Philosophy. (3). Major figures in 20th Century European Thought. Such movements as phenomenology, existentialism, structuralism and hermeneutics.

4613-6513. Business and Professional Ethics. (3). Practices and ethics of individuals in business, law, government, social work, and other professions from the standpoint of contemporary ethical theory.

4631-6531. Philosophy of Law. (3). Introduction to theories of legal reasoning and basic principles of jurisprudence. For pre-law students and others pursuing law related careers. Topics include concept of law, legal realism, stare decisis, equity jurisprudence, and civil disobedience. PREREQUISITE: one course in philosophy or permission of instructor.

4651-6551. Social and Political Philosophy. (3). (3351). Major philosophical theories of man and the state, emphasis on concepts of society, culture, institutions, government, law, power, authority, rights, and obligation. Selected readings. PREREQUISITE: one course in philosophy or permission of instructor.

4552-6552. Marx. (3). Critical study of philosophy of Karl Marx, including the *Manifesto*, *Capital* and subsequent philosophical and historical developments.

4632-6532. Advanced Logic. (3). Nature of axiomatic systems, techniques of formalization, and logical foundations of mathematics. PREREQUISITE: PHIL 3621 or permission of instructor.

4642-6542. Philosophy of Psychology. (3). Examination of philosophical issues in the foundations of behavioral sciences, such as, free will and determinism, the use of mental concepts in the behavioral sciences and explanation in behavioral and natural sciences. PREREQUISITE: one course in philosophy or psychology or permission of instructor.

4761-6761. The Philosophy of Art. (3). (3761). Role of philosophical ideas in artistic creation and experience and their expression in painting, sculpture, music, and other art forms. PREREQUISITE: PHIL 1111 or permission of instructor.

4801-6801. Systematic Topics in Philosophy. (3). Epistemology, metaphysics, philosophy of language, philosophy of mind, logical theory, and axiology. Area to be covered appears in *Schedule of Classes* semester it is taught. May be repeated for maximum of 15 hours credit without changing an earlier grade if different areas are treated. PREREQUISITE: two courses in philosophy or permission of instructor.

4891. Senior Honors Thesis. (3). Directed reading and research culminating in a Senior Thesis. Thesis topic to be selected by student with approval of thesis director before honors students in philosophy. May be repeated in successive semesters for up to 6 hours credit.

PHYSICS

ASSOCIATE PROFESSOR

DONALD R. FRANCESCHETTI, *Chairman*

Room 216, Manning Hall

E350 PHYSICS (PHYS)

1111. Foundations of Physics. (3). Certain basic principles of science; particular stress on nature of physics; designed for student who has had no previous training in physics. Two lecture, two laboratory hours per week. Credit will not apply toward major or minor in physics, chemistry, or physical science, nor will it satisfy any part of science requirements in pre-professional curricula.

1112. Foundations of Physics. (3). Continuation of PHYS 1111. Two lecture, two laboratory hours per week. Credit will not apply to major or minor in physics, chemistry or physical science, nor will it satisfy any part of science requirement in pre-professional curricula.

1811. General Astronomy. (3). Practical astronomy and solar system; includes motions of earth and moon, apparent motions of stars and planets, eclipses, time and calendar, properties of bodies in solar system. Occasional observation periods at night. Two lecture, two laboratory hours per week.

1812. General Astronomy. (3). Survey of stellar and galactic astronomy; includes stellar distances and properties, interstellar matter, multiple stars, clusters, Milky Way and other galaxies. Occasional observation periods at night. Two lecture, two laboratory hours per week.

2111. General Physics. (4). Mechanics, heat, and sound, required of all technology, premedical, pre-dental, and pre-pharmacy students. Three lecture, two laboratory hours per week. PREREQUISITE: MATH 1212.

2112. General Physics. (4). Continuation of PHYS 2111; includes magnetism, electricity, light, and modern physics. Three lecture, two laboratory hours per week. PREREQUISITE: PHYS 2111.

2611. Physics for Science and Engineering. (4). Primarily for students intending to major in physics, chemistry, or mathe-

matics; required of all students in engineering curriculum and recommended for students planning to teach physics in secondary schools. Three lecture, two laboratory hours per week. PREREQUISITE: MATH 1321

2512. Physics for Science and Engineering. (4). Continuation of PHYS 2511. Three lecture, two laboratory hours per week. PREREQUISITE: PHYS 2511.

3000. Special Topics in Applied Physics. (3). Applied areas of physics, including optics, electronics, acoustics, and radiation. Experiments and projects of special interest to student. Three lecture hours or the equivalent laboratory hours per week. This course may not be counted toward a major in physics.

3010. Introduction to Modern Physics. (3). Principles of relativity, quantum mechanics and atomic physics; selected topics in solid state, nuclear, and molecular physics. Three lecture hours per week. PREREQUISITE: PHYS 2512

3011. Theoretical Physics. (3). (4810). Special mathematical techniques in solution of physical problems. Emphasis on vector calculus, boundary value problems, eigenvalue problems, and Fourier series. Three lecture hours per week. PREREQUISITE: PHYS 2512.

3020. Biophysics. (3). Selected topics from biophysics; with emphasis on understanding of basic physical principles and their relation to biology and medicine. Three lecture hours or the equivalent laboratory hours per week.

3111. Mechanics. (3). Advanced classical mechanics; includes statistics, dynamics of particles, rigid bodies, fluid flow, work, energy, momentum, force fields, and harmonic motion. Three lecture hours per week. PREREQUISITE: PHYS 2512, MATH 3391.

3112. Mechanics. (3). Continuation of PHYS 3111. Three lecture hours per week. PREREQUISITE: PHYS 3111.

3211. Electricity and Magnetism. (3). Electromagnetic fields and waves, including such topics as dielectrics, induced electromotive force, magnetic energy, magnetic materials, Maxwell's equations, and reflection and refraction. Three lecture hours per week. PREREQUISITE: PHYS 2512, MATH 3391

3212. Electricity and Magnetism. (3). Continuation of PHYS 3211. Three lecture hours per week. PREREQUISITE: PHYS 3211.

3510. Electronics. (4). Theory and application of electronic devices; emphasis on scientific instrumentation. Laboratory oriented course including basic semiconductors, integrated circuits, and microprocessors. Three lecture, three laboratory hours per week. PREREQUISITE: PHYS 2512 or 2112 or equivalent.

3610. Experimental Techniques. (1). Introduction to independent experimentation including shop practices, glass blowing, and preparation of experimental data for computers. Some experiments of traditional nature related to physics courses. Three laboratory hours per week. PREREQUISITE: PHYS 2512.

3611. Experimental Techniques. (1). Continuation of PHYS 3610. Three laboratory hours per week.

4010. Advanced Experimental Physics. (1). Advanced classical and modern laboratory experiments; emphasis on effective planning and performance of experiments with appropriate interpretation of data. Three laboratory hours per week.

4011. Advanced Experimental Physics. (1). Continuation of PHYS 4010. Three laboratory hours per week.

4021. Applied Radiation Physics. (3). Applied radiation and radioactivity. Includes types of radiation, radiation measurement, interaction with matter, and biological effects. Radiation safety aspects emphasized. Three lecture hours per week. PREREQUISITE: PHYS 2112 or 2512 and MATH 1321.

4022. Applied Radiation Physics. (3). Continuation of PHYS 4021. Three lecture hours per week. PREREQUISITE: PHYS 4021.

4030. Radiation Physics Laboratory. (3). Radiation and radioactivity. Experiments emphasize measurement and characterization of radiation and radioactive materials. Four laboratory hours per week. PREREQUISITE: PHYS 4021.

4051-6051. Astrophysics. (3). Application of radiation laws to interpretation of stellar structure. Introduction to radiative transfer in atmospheres. Spectral and luminosity classification of stars. Stellar populations and evolution. Three lecture hours per week. PREREQUISITE: PHYS 2512, PHYS 3010 is recommended.

4110-6110. Nuclear Physics. (3). Properties of atomic nuclei, radioactive transitions, alpha, beta, and gamma decay. Binding energy, nuclear forces and nuclear models. Three lecture hours per week. PREREQUISITE: PHYS 2512, PHYS 3010 is recommended.

4211-6211. Optics. (3). Brief review of geometrical optics; concentration on wave optics. Includes polarization phenomena, interference, diffraction, coherence, holography, and scattering. Three lecture hours per week. PREREQUISITE: PHYS 3211 or equivalent.

4410-6410. Introduction to Quantum Theory. (3). Experimental basis of quantum theory; development of Schrodinger equation and its solution of simple systems; selected applications in atomic and molecular structure. Three lecture hours per week. PREREQUISITE: PHYS 3111, 3211 or equivalent.

4510-6510. Thermodynamics. (3). Mathematical treatment of thermodynamics, including such topics as work, energy, enthalpy, entropy, reversible and irreversible processes, equilibria, specific heats, and phase transitions. Three lecture hours per week. PREREQUISITE: PHYS 2512, MATH 3391.

4610-6610. Solid State Physics. (3). Such topics as lattice vibrations, specific heats, electrical and thermal conductors in solids, magnetism. Three lecture hours per week. PREREQUISITE: PHYS 3010 or equivalent.

4710. Spectroscopy. (3). Basic theory and experimental techniques presented in survey of various fields of spectroscopy. Included are considerations of infrared, ultraviolet, microwave, Raman, and magnetic resonance spectroscopy. Three lecture hours per week.

4910. Seminar. (1). Special projects, reports and investigation of current literature and research. May be repeated for

maximum of 2 semester hours credit. PREREQUISITE: permission of instructor.

E350 NUCLEAR POWER OPERATIONS (PHYS)

The courses listed below are designed for, and normally restricted to, students enrolled in special programs offered by the Center for Nuclear Studies. Other students may enroll in these courses only with permission of the Chairman of the Physics Department. Upper division courses in this group may be applied towards the physics major or minor with the permission of the department chairman.

2311. General Physics for Technicians I. (3). Mechanics and fluids. PREREQUISITE: MATH 1200 or equivalent.

2312. General Physics for Technicians II. (3). Heat and thermodynamics. PREREQUISITE: PHYS 2311.

2313. General Physics for Technicians III. (3). Electricity. PREREQUISITE: PHYS 2311.

3700. Thermodynamics for Nuclear Power Applications. (3). Thermodynamic quantities and units. Reversible and irreversible processes. Phase equilibria. Heat transfer and mass flow. Heat engines.

3701. Physics of Fluids. (3). Thermodynamic relationships describing behavior and flow of fluids under single- and two-phase conditions. Application to nuclear power plants. PREREQUISITE: MATH 2300 or equivalent.

3702. Nuclear Heat Mechanics. (3). Heat transfer mechanisms and applications to nuclear power plant reactor cores, heat exchangers, steam generators, condensers, etc. PREREQUISITE: MATH 2300 or equivalent.

3703. Stress Mechanics. (3). Failure modes of materials including metals, ceramics, and plastics. Application to nuclear power plant reactor cores, heat exchangers, steam generators, condensers, etc. PREREQUISITE: MATH 2300 or equivalent.

3710. Nuclear Physics for Reactor Applications. (3). Atomic and nuclear structure, radioactive decay mechanisms, particle scattering, fission, fusion.

4220. Reactor Physics. (4). Theory and operation of nuclear reactors as energy source for large scale power operation, including fundamental concepts of physics applied to the production and control of nuclear chain reactions. PREREQUISITE: PHYS 2312 and 3710.

4221. Advanced Reactor Physics. (3). Continuation of reactor physics; emphasis on reactor design parameters. PREREQUISITE: MATH 2300 or equivalent, PHYS 4220.

POLITICAL SCIENCE

ASSISTANT PROFESSOR

DAVID N. COX, *Chairman*

Room 427, Clement Humanities Building

The political science areas of study are indicated by the second digit of the course number: General 1, American Government and Public Law 2, Comparative Government 3, Political Theory 4, International Relations 5, Public Administration 6, and Special 7 and 8.

The prerequisite for all 4000 level courses is either junior standing or the permission of the instructor.

E370 POLITICAL SCIENCE (POLS)

1100. American Government. (3). (2211). Origins of our system of government, framing of Constitution, principles underlying constitutional government, citizenship, civil rights, political institutions, national executive, congressional organization and functions, and judicial process.

1101. Basic Issues of Politics. (3). How people distribute power, confer authority, resolve conflict, and pursue goals within a political system.

2301. Comparative Politics. (3). Introduction to comparative study of politics with application to selected countries.

2501. International Politics. (3). Relationships among nation-states, ranging from war to cooperation; emphasis on both domestic and external determinants of state action.

3100. Political Inquiry. (3). Research process in political science; emphasizes skills common to all subfields of political science—familiarity with sources of data and documents, research design and general analytic skills.

3102. Religion and Politics. (3). Survey of role of religion and religious belief in politics. Emphasizes role of religious institutions in international arena and national politics and effects of religion on behavior and political beliefs.

3211. State and Local Governments. (3). Role of state governments in Federal System, political institutions, elections; organization, functions, and problems of state government; emphasis on Tennessee government.

3213. Introduction to the Study of Public Policy. (3). Public policy formulation process and some of the major substantive areas of policy concern in America. Emphasis on framework for identifying and analyzing substance of public problems, policy making, and policy administration.

3216. Political Parties. (3). Political party as process of government, emphasis on party organization, activities, nominating and campaign methods, voter participation, and two-party system.

3224. Urban Politics. (3). Functions and role of government in urban America in context of urban politics and social, economic, and governmental problems of cities and suburbs.

3302. Western European Government and Politics. (3). Comparative study of selected political systems of Western European States.

3306. Latin American Government and Politics. (3). Forms of organization, functions and operations of government in Latin America. Emphasis on development of political institutions and present day trends.

3307. Government and Politics of South Asia. (3). Political institutions and governmental processes of selected South Asian states.

3309. Government and Politics of North Africa and Middle East. (3). Analysis of organization and functions of governments in area dominated by tenets of Islam, including examination of origin and development of Arab-Israeli conflict.

3401. Legal/Political Thought: Classical. (3). Question of justice and its relation to law and politics. Emphasizes confrontation between classical and modern views.

3402. Legal/Political Thought: Modern. (3). Question of justice and its relation to law and politics. Emphasizes confrontation between early and recent modernity.

3405. Introduction to Law and Jurisprudence. (3). Sources, functions, and processes of law.

3505. International Organization. (3). Origins, structure, functions, and evolution of selected international organizations. The United Nations and/or regional and functional organizations serve as basic references.

3506. American Foreign Policy Process. (3). American foreign policy; emphasis on factors involved in developing and implementing policy.

3601. Public Administration. (3). Concepts and practices of organization and management in executive departments, national, state, and local; analysis of bureaucracy, administrative theory, budgeting, personnel, and administrative leadership.

3610. Personnel Management for the Fire Service. (3). Personnel practices and management procedures. Included are manpower planning, labor relations, recruitment, selection, testing, performance appraisals, classification, motivation, politics, and management. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

3611. Disaster and Fire Defense Planning. (3). Concepts and principles of community risk assessment, regional and co-operative procedures and plans, relationship of structural, climatic, and topographical variables to group fires, conflagrations, and natural disasters, pre and post occurrence factors, communications, planning, organizing, coordination, command and logistics. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

3612. Fire Prevention Organization and Management. (3). Examines and evaluates techniques, procedures, programs and agencies involved with fire prevention. Includes public and private fire prevention functions, licenses, permits, zoning, legal aspects, inspection, investigations, planning, arson and incendiary analysis. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

3613. Advanced Fire Administration. (3). Overview of organization and management in modern fire service. Includes management of equipment and personnel, fire department functions, planning, resource development, labor relations. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

3614. Political and Legal Foundations of Fire Protection. (3). Legal basis for police power of government related to public safety. Legal limitations and responsibility. Liability of fire prevention organizations and personnel. Review of judicial decisions. Implications of product liability cases in fire prevention. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

3615. The Community and The Fire Threat. (3). The sociological, economic and political characteristics of communities and their influence on the fire problem. How to study community profiles and structures with consideration of the economic, geographic, and sociological variables of the fire threat. Examination of functional basis of the community, diverse social roles of community agencies, and study of fire services as a complex organization in community. PREREQUISITE: admission restricted to students seeking BPS degree in Fire Administration or Fire Prevention Technology.

4101-6101. Techniques of Political Analysis. (3). Introduction to analysis of quantitative data used to test hypotheses in fields of political science and public administration, including both parametric and nonparametric techniques. Particular attention to alternative measures of association and significance, regression, factor analysis, path analysis, and causal meeting.

4102-6102. Political Behavior. (3). Introduction to contributions of behavioral sciences to understanding of political system. Political behavior as manifested in formation of attitudes, public opinion, group organization, and political power.

4211-6211. Constitutional Law: National Powers. (3). Relationships and controls of three branches and nature of division of power between nation and states; emphasis on role of Supreme Court as arbiter in constitutional system.

4212-6212. Constitutional Law: Civil Liberties. (3). Judicial interpretation of political and civil rights; emphasis on period since 1945.

4213-6213. Public Policy. (3). Selected public policy issues and politics in policy making process.

4214-6214. The Presidency and Executive Decision-making. (3). Presidential behavior as embodiment of personal, social and institutional forces. Attention to growth of Presidency, decision-making process, limitations on presidential power and role of Chief Executive in a democratic system.

4215-6215. Constitutional Policies and The Judicial Process. (3). Limits of political resources and power of judiciary. Primary attention to extent to which United States Supreme Court able to obtain compliance with its decisions on highly politicized and controversial questions of public policy; Court in conflict with other branches of the national government, the state governments, and public opinion.

4216-6216. Interest Groups in the American Political System. (3). Role and impact of selected interest groups within American political system. Group theory, tactics, and group relationships with various governmental institutions.

4217-6217. The Legislative Process. (3). Origins, organization, functions, and activities of modern legislature; making laws, supervising the administration, representing and informing people.

4218-6218. Public Opinion and Politics. (3). Formation, measurement and content of public opinion about political issues. Includes a public opinion poll of local community.

4221-6221. Urban Administration. (3). Politics, administration, and public policy in urban context. Focus on administrative aspects of selected governmental policy-making processes; interrelationships of governments at various levels; urban challenges facing modern public administrators.

4224-6224. Urban Problems. (3). Selected problems in urban administration, politics, and policies.

4225-6225. The Courts and Urban Policy. (3). Courts as policy-makers in urban realm. How, why, and to what extent courts have become major participants in shaping of urban policies; institutional competence of judiciary to deal with these matters.

4230-6230. Legislative Internship. (3-12). Supervised internship working with Tennessee General Assembly or other legislative bodies on current legislative programs. Seminar sessions to discuss and analyze problems with which interns working. May be repeated for total of 12 credits. PREREQUISITE: permission of department.

4231. Administrative Internship. (3-12). Supervised internship working with administrative branches of national, state, or local governments. Seminar sessions to discuss and analyze problems with which interns are working. May be repeated for total of 12 credits. PREREQUISITE: permission of department.

4305-6305. Soviet Government and Politics. (3). Organization and functions of authoritarian state; emphasis on role of Communist Party and ideology.

4307-6307. Government and Politics of Communist China. (3). Institutions of government, political process, political elites, political groups and political socialization in Communist China.

4309-6309. Comparative Political Parties. (3). Political parties and party systems in selected countries.

4313-6313. Comparative Public Policy. (3). Formation and implementation of major substantive areas of public policy in selected countries.

4399-6399. Research and Studies Abroad. (1-6). Supervised field research and studies in selected foreign countries. May be repeated up to six hours.

4401-6401. Modern Political Ideologies. (3). Major ideologies affecting modern politics. Includes ideologies of democracy, communism, and fascism as well as capitalism and socialism, racism, and nationalism, and ideologies of developing or "third" and "fourth world" nations.

4403-6403. Contemporary Protest Thought. (3). Political theories of recent and contemporary protest. Subject matter varies according to what currently excites political protest; but recent topics have included the political elements of black protest, the new left, the new right, women's liberation, ecology and energy, and consumer's movements.

4405-6405. American Political Thought. (3). Analysis of political thought in United States from colonial to present time; emphasis on relation between political thought and political institutions and practices.

4407-6407. Black Political Thought. (3). Analytical survey of black political thought from colonial period to present. Emphasis upon recent and contemporary thought.

4409-6409. Marxism and Politics. (3). Impact of Marxism on political ideas, practices and movements throughout the world.

4501-6501. Contemporary Problems in International Politics. (3). Emphasis on major powers.

4502-6502. Soviet Foreign Policy. (3). Basic concepts of Soviet foreign policy; development and techniques; present patterns of Soviet relations with key nations; major problems in future relationships.

4504-6504. International Law. (3). Nature, scope, duties, rights, and evolutionary trends of international law.

4505-6505. Comparative Communist Systems. (3). Cross-national comparison of adaptation of ruling and non-ruling communist parties to different political environments. Includes examination of inter-party and intra-block relations.

4506-6506. Problems of American Foreign Policy. (3). American foreign policy problems taken from specific areas or issues of foreign policy.

4608-6508. Theories and Concepts in International Politics. (3). Theoretical approaches to study of international politics. Attention to methodology, models, and international political simulation.

4509-6509. Comparative Foreign Policies. (3). Foreign policies of major actors (nation-states, groupings such as oil-producing nations of OPEC, and other entities) in world politics.

4602-6602. Public Finance Administration. (3). Detailed study of administrative and political problems of fiscal policy, budgetary process, and fiscal controls.

4603-6603. Public Personnel Administration. (3). Policies, methods and techniques utilized in public personnel administration. Attention to problems reflecting contemporary demands upon personnel organizations. Capacity to analyze problems, select most effective means of dealing with them, and plan appropriate courses of action through case example.

4604-6604. Problems of Public Administration. (3). Problems in public administration process; emphasis on contemporary developments.

4606-6606. Program and Policy Evaluation. (3). Models, theories and techniques of program and policy evaluation in public administration. Includes evaluation research design, data collection and analysis, dissemination of results, possible applications of evaluations to policy making and administration, and organizational and political contexts of evaluation.

4611-6611. Administrative Law. (3). Role and nature of administrative law, including procedural requirements and

judicial review of administrative actions and liability of government for torts and breach of contract

4615-6615. Comparative Administration. (3). Investigation of administrative structures, functions, and controls in selected developed and developing nations.

4625-6625. Intergovernmental Relations in the United States. (3). Interdependencies and relations between governmental structures and organizations in American system; emphasis on problems of conflict and coordination.

4701. Senior Seminar in Political Science. (3). Review of professional literature generally or in particular area of political science combined with significant research on special political problems. PREREQUISITES: senior standing and political science major.

4702. Independent Study. (1-3). Independent investigation of research problem or directed reading in selected area of political science under tutorial supervision of member of political science faculty. PREREQUISITE: permission of chairman.

4705-6705. Special Topics in Public Issues. (3-6). Topics of current significance in public issues. May be repeated for maximum of 6 hours credit.

4801-6801. Science and Politics. (3). Multiple interactions between the political systems and scientific and/or technological developments. Emphasis on complexities surrounding relationship between public policy and science, as exemplified in government decisions and actions regarding support, use and control of scientific research and applied technology.

4802-6802. Sex and Politics. (3). Legal and political rights and duties of both sexes; relationship of government to various types of sexual activity.

PSYCHOLOGY

PROFESSOR MILTON TRAPOLD,

Chairman

Room 202, Psychology Building

PSYC 1101 or 1102 is prerequisite for all other courses in the Department of Psychology; both 1101 and 1102 are required of Psychology majors.

E390 PSYCHOLOGY (PSYC)

1100. Psychological Principles and Personal Effectiveness. (3). For those planning to take only one psychology course. Introduction to basic psychology in the context of personal adjustment. Emphasis on how psychological principles and data generate tactics for more effectively managing one's behavior and emotions in relation to commonly encountered situations such as work, school, family, marriage, etc.

1101. General Psychology I. (3). Introduction to social aspects of psychology as a science of behavior. Areas of study include personality, abnormal behavior, psychotherapy, social and developmental psychology, intelligence, and applied psychology.

1102. General Psychology II. (3). Introduction to the biological aspects of psychology as a science of behavior. Areas of study include learning, sensation and perception, physiological and comparative psychology, and psycho-pharmacology.

2301. Psychological Statistics. (3). Introduction to use of statistics in psychology, with emphasis on elementary theory of measurement and computation. Topics include measures of central tendency and variability, tests of significance, correlation procedures, and an introduction to multivariate analyses, analysis of variance, and nonparametric procedures.

2302. Introduction to Psychological Research. (3). Survey of logical and methodological considerations common to all research and an overview of the range of observation, measurement and laboratory procedures employed, and presentations of their own research by various members of the faculty. COREQUISITE: PSYC 2301.

3101. Psychology of Personality. (3). Introduction to development and functioning of normal person. Variety of representative theoretical orientations examined; emphasis on psychoanalytic theories and other 20th century theoretical viewpoints.

3102. Abnormal Psychology. (3). Basic concepts of psychopathology with emphasis on the development of behavior deviations, description of various neurotic and psychotic reactions, and an introduction to methods of psychotherapy.

3103. Child Psychology. (3). Patterns of cognitive, interpersonal, and behavioral development from birth through early adolescence. Psychological effects of genetic, organic and environmental influences as the child matures.

3104. Adult Psychology. (3). Patterns of cognitive, interpersonal and behavioral development from late adolescence to old age. The theoretical and empirical literature pertaining to such topics as marital and vocational choices, parenting, the midlife crises, and death.

3106. Social Psychology. (3). (3302). Analysis of the behavior and experience of individuals in group settings, examining such topics as leadership, social influence, and inter-group and intragroup relations.

3107. Child Psychopathology. (3). Introduction to major theoretical formulations of childhood disorders, including learning, developmental, psychoanalytic and family systems theories. Emphasis on basic research that contributes to understanding of difficulties such as learning disabilities, mental retardation, childhood autism, hyperactivity, and juvenile delinquency.

3199. Special Topics in Personality, Psychopathology and Development. (1-6). In depth coverage of topics not treated sufficiently in the other 31—series of courses. Particular topics each semester will be advertised in the department prior

to registration. May be repeated for maximum of 9 credit hours when the topic varies.

3303. Thinking and Cognitive Processes. (3). Analysis of the development and modification of thinking, reasoning, conceptualization, language processes in the individual.

3304. Sensation and Perception. (3). (4203) Major senses, methods used to study them, and application of this knowledge. Perceptual and related interpretive process that operate upon sensory information and relationship of those processes to learning and motivation.

3305. Learning and Memory. (3). (4204). Survey and analysis of the basic processes involved in acquisition and retention of new behaviors and alteration of existing behaviors in animals and humans. Examination of some central theoretical concepts and issues in learning.

3306. Physiological Psychology. (3). (4201). Survey of physiological processes underlying sensation, perception, motivation and emotion, motor systems, unlearned and learned behavior patterns, memory and other psychological functions.

3307. Animal Behavior. (3). (4202). Synthesis of comparative psychological and ethological approaches to study of animal behavior. Such topics as behavior genetics, species specific behaviors, behavior as a basis for phylogenetic classification, major behavioral dimensions related to phylogenesis, etc.

3399. Special Topics in Experimental Psychology. (1-6). In depth coverage of topics not treated sufficiently in the other 31—series of courses. The particular topics to be covered each semester will be advertised in the department prior to registration. May be repeated for maximum of 9 credit hours when topic varies.

3501. Psychological Principles in Law Enforcement. (3). Application of psychological principles to law enforcement. Law enforcement both at the institutional level and at the level of the individual police officer dealing with the public.

3502. Psychological Testing. (3). (4301). Essentials of testing, emphasizing the concepts of reliability and validity; limitations of psychological tests; familiarization with standardized interests, aptitude, achievement, intelligence and personality tests; practical experience with some "paper-and-pencil" group tests; questionnaire construction and administration. PREREQUISITES: PSYC 2301 and 3101.

3503. Introduction to Clinical Psychology. (3). (4302). Survey of history of clinical psychology; services provided by clinical psychologists; different strategies of diagnosis and therapy; ethical considerations of clinical psychologists. Introduction to interviewing techniques and practice in the use of these techniques. Field trips to institutions utilizing clinical psychologists.

3504. Introduction to Behavior Therapy. (3). (4303). Survey of behavior therapy techniques, including observational procedures, methods of remediation, data recording and report writing. PREREQUISITE: PSYC 3102.

3505. Theory and Research in Community Mental Health. (3). (4304). Community and preventive mental health movement in clinical psychology. Social-psychological models, critical evaluation of community mental health interventions, and review of environmental design practices and work with low socio-economic class groups. One-half the grade will be based upon mastery of theory and research presented in weekly class meeting of 75 minutes. The remainder of the grade will be determined by performance during 5 hours per week of supervised community research.

3506. Human Sexuality. (3). (3105). A survey of existing knowledge of human sexual behavior, including physiological, anatomical, psychological and cultural components. Focuses primarily on normative sexual functioning; such topics as sexual deviation, sexual dysfunctions, and types of treatment are also considered. PREREQUISITES: PSYC 1101 and 1102.

3507. Alcohol, Drugs and Behavior. (3). Survey of major drugs of abuse, their mode of action, and their behavioral effects, both acute and chronic. Major theories of etiology and maintenance of drug abuse, and review of prominent strategies for prevention, intervention and treatment.

3508. Industrial and Organizational Psychology. (3). (3301). Application of psychological concepts and methods to phenomena in industrial and organizational settings, with emphasis on personnel selection, classification and evaluation, employee attitudes, morale and motivation, and psychological analysis of the condition of work.

3599. Special Topics in Applied Psychology. (1-6). In depth coverage of topics not treated sufficiently in the other 35—series of courses. Particular topics each semester will be advertised in department prior to registration. May be repeated for maximum of 9 credit hours when topic varies.

4101. History of Psychology. (3). Comprehensive survey and critical analysis of the philosophical and scientific antecedents of contemporary psychology. PREREQUISITE: 10 upper division hours in psychology.

4503. Special Problems in Psychology. (1-3). Student, under faculty supervision, may (a) read intensively in specialized area, (b) conduct psychological research and/or (c) obtain field experience in community institutions where psychological principles are applied. 4503 and 4504 may be taken for a combined total of 9 hours, no more than 6 of which may be with the same faculty member. PREREQUISITE: permission of the department. (S/U)

4504. Directed Research. (3). Majors receive first hand research experience under tutelage of individual faculty member. Students may work individually or in small groups depending upon the project. Projects conform to set of guidelines available from department. NOTE: PSYC 4503 and 4504 may be repeated for a combined total of up to 9 hours, 6 with any one faculty member. PREREQUISITE: permission of department. (S/U)

SOCIOLOGY AND SOCIAL WORK

PROFESSOR JERRY B. MICHEL, *Chairman*

Room 231, Clement Humanities Building

Sociology 1111 is a prerequisite for all other courses in sociology and social work.

E410 SOCIOLOGY (SOCI)

1111. Introductory Sociology. (3). Relations among social values, social organizations, and social institutions. Processes such as change and conflict as well as institutions including family, economy, and education.

1112. Contemporary Social Problems. (3). Investigation, analysis, and discussion of current social problems.

1900. Practitioner Perspectives on the Health Professions. (1). Social organizational aspects of medical practitioners' professional lives as presented by representatives of various medical fields. *Designed only for students who have chosen medical careers.* No prerequisite.

3311. Social Statistics. (3). Application of basic statistical concepts and techniques to social analysis. Description of data for single variables and for relationships between two variables. Tests of significance for relationships between two variables involving sample data. Use of packaged statistical computer programs for single and two variable analysis.

3322. Methods of Social Research. (3). Overview of process of social research; selection and formulation of problem, design of research, methods of investigation, analysis and interpretation of data, and report preparation. Emphasis on data collection techniques. PREREQUISITE: SOCI 3311.

3401. Social Inequality. (3). Unequal distribution of power, property, and prestige; how and why this inequality occurs; and the resulting social strata such as "class" and "status group".

3422. Social and Ethnic Minorities. (3). (Same as ANTH 3422). Comparative study of social and ethnic minorities in United States and elsewhere; with a focus on differences in cultural backgrounds, social relationships with larger society, social, educational, and legal problems; factors contributing to satisfactory and unsatisfactory adjustments of minorities.

3432. Sociology of Sex Roles. (3). Traditional conceptions of masculinity and femininity and modifications of these resulting from economic, demographic and cultural changes. Socialization for masculine and feminine roles and variations in these roles throughout life cycle. Class, race, occupational and other institutional differences in sex roles.

3501. Sociology of Deviant Behavior. (3). Contemporary theories of deviant behavior; major types of deviation in American society; relationship of deviant behavior and social disorganization to social change.

3521. Criminology. (3). Nature and significance of criminal behavior; statistics of criminal behavior and criminals; trends in social reactions to criminal behavior and criminals. Development and nature of theories of criminal behavior. Current programs for treatment and prevention of criminal behavior.

3610. Population. (3). Population theories and policies; their definition and history. Trends in population growth; methods of population analysis, and trends in fertility and mortality. Emphasis on fertility, mortality, sex and age composition, and migration and their influences on population change. PREREQUISITE: SOCI 1111 or instructor's permission.

3701. Introduction to Social Psychology. (3). Basic theory and research dealing with study of human behavior in social situations; emphasis on communication processes, socialization, social roles, social self, and interaction in group contexts.

3801. Sociology of Formal Organizations. (3). Formal organizations in society and their effects on individual and group behavior. Emphasis on nature of bureaucracy in business, educational, political, welfare, military, religious, and other organizations.

3820. Educational Sociology. (3). Sociological analysis of education and its functions; school and community relationships; problems of social change and educational adjustments.

3831. Marriage and the Family. (3). Marriage and the family in contemporary society. Interrelationships with other major social institutions, mate selection, marital adjustments; parental and family disorganization. Contemporary changes and conflicts in marriage and family.

3841. Industrial Sociology. (3). Social characteristics of business and industrial organizations; role of the consultant in personnel organization and human relations programs.

3860. Sociology of Religion. (3). Role of religion in social systems; reciprocal influence of religion and modern society; sociological analysis of religious organizations and the roles which comprise them; social correlates of religious opinions and attitudes.

3870. Political Sociology. (3). Sociological examination of political institutions, cultural and social factors associated with political structure, political attitudes, and political behavior; political decision-making as sociological process, comparative and methodological study of social movements and political parties.

3930. Mexican Society and Culture. (3). Mexico's social development, population, contemporary institutions and cultural patterns, the family, the community and urban society, minority group relations, and social problems.

3940. Social Change. (3). Sociological analysis of theory, nature, meaning, and consequences of social change.

4210. Rise of Sociological Theory. (3). Development of sociological theory; emphasis on period from Comte to "Chicago School."

4211-6211. Contemporary Sociological Theory. (3). European contributions, American developments and recent trends in sociological theory.

4312-6312. Intermediate Social Statistics. (3). Multivariate analysis of social data. Use of computer programs for data management and statistical analysis. PREREQUISITES: SQCI 3311, 3322, or equivalents, or permission of the instructor.

4420. Race Relations. (3). Exploration into patterns of dominance, specific focus on institutionalized racism as it affects American Blacks. Attention given to ways in which racial inequities reinforce the American stratification system.

4442. Sociology of Poverty. (3). Distribution of poverty and affluence in contemporary and industrial society. Effects of poverty on individuals and society. Theories of poverty.

4622. Juvenile Delinquency. (3). Trends of juvenile delinquency; development of case study techniques and diagnosis of juvenile delinquency; comparative analysis of various theoretical approaches.

4541-6541. Sociology of Aging. (3). (Same as SWRK 4541). Ageism in sociocultural contexts; current beliefs, values, and norms regarding aging; structural location of aging in society; and implications of ageism in employment, poverty, private and institutional housing, crime, physical illness and mental illness.

4631. Urban Society. (3). Cities; their basic historical and modern development, power structures, social institutions and relationships; future of the city. Problems of contemporary cities such as slums, urban sprawl, transportation, and ethnic and racial segregation. Processes of change in urban environment.

4760. Sociology of Adolescence. (3). Social aspects of adolescence. Emphasis on socialization into youthhood, changing nature of adolescence in industrial societies, conflict of institutional demands with peer group membership, self-identity problems, values of youth subcultures and contra-cultures.

4842-6842. Sociology of Occupations and Professions. (3). Sociological analysis of division of labor, occupational groupings, career patterns, and professional associations in modern American society; meaning of work.

4851. Medical Sociology. (3). Sociological analysis of definition and distribution of physical illness and society's response to its occurrence, focusing on roles of patient, physician and ancillary professionals within contemporary medical settings, particularly the modern hospital.

4852. Sociology of Mental Illness. (3). Sociological analysis of definition and distribution of mental illness and society's

response to its occurrence, focusing on social organizational provision for professional and patient roles within contemporary therapeutic settings.

4911. Special Topics in Sociology. (3). Special areas of sociology not otherwise included in the curriculum. NOTE: Course may be repeated for a maximum of 6 hours credit.

4912. Directed Individual Study. (1-6). Individually directed advanced reading and/or research in special areas of interest. NOTE: Course may be repeated for maximum of 6 hours credit. PREREQUISITE: permission of department chairman.

4922. Senior Seminar in Sociology. (3). Current theoretical issues and research in sociology. Open to senior sociology majors and to other advanced students by invitation.

E470 SOCIAL WORK (SWRK)

2911. Introduction to Social Welfare. (3). American social welfare system: its basic principles, social values, and underlying assumptions regarding societal responses to human need. Fundamental historical, philosophical, political, economic, social, and psychological influences contributing to contemporary institutions of social welfare.

3901. Professional Social Work in Contemporary Society. (3). Social work as a profession within social welfare institution, values, ethics, and overview of social work intervention at individual, family, group, community levels; roles of social workers in human service agencies. PREREQUISITE: SWRK 2911 or instructor's permission.

3902. Human Development and Social Interaction I. (3). Survey of human needs from birth through adolescence; focus on role functions and relationships. Social and cultural variables and impact of critical life experiences. PREREQUISITE: SWRK 2911.

3903. Models of Social Intervention. I. (3). Theories and concepts in social work, including introduction to case work, group work and community organization. Emphasis on case work model and on implications of intervention. PREREQUISITES: SWRK 2911 and 3902 and permission of Director, Division of Social Work.

3904. Models of Social Intervention II. (3). Emphasis on problem-solving models, assessment, intervening planning, use of community resources, and functions of social workers; extensive case analysis. PREREQUISITE: SWRK 3903.

3905. Dynamics of Professional Interviewing. (3). Models, techniques and skills in relationship building, types and styles of interviews; interaction patterns between client and social worker; observational and experiential activities, role-playing

and videotape. PREREQUISITE: SWRK 3903. COREQUISITE: SWRK 3904.

3912. Human Development and Social Interaction II. (3). Social work approach to evolving adult person; focus on maturational crises and their impact on social functioning and role options within social networks. Bio-psycho-socio-cultural framework viewing person individually and collectively, coping with group, organizational, and community realities, resources, and constraints. PREREQUISITE: SWRK 3902.

4541. Sociology of Aging. (3). (Same as SQCI 4541). Ageism in sociocultural context; current beliefs, values, and norms regarding aging; structural location of aging in society, and implications of ageism in employment, poverty, private and institutional housing, crime, physical illness and mental illness.

4830. Field Instruction in Social Work. (3). Educationally focused, practice-oriented field work in wide range of social and human service agencies, both established and newly emerging, for individual, group, and community needs; 12-16 hours weekly. May be repeated for a maximum of six hours. PREREQUISITES: SWRK 3903 and permission of Director, Division of Social Work.

4930. Topics in Specialized Social Services. (3). Topics in social needs and services; two to four areas related to student interest and emerging service needs. Directed by staff, with lectures from campus and social service community. PREREQUISITE: Social Work major with senior status, or permission of instructor.

4931. Social Work Practice and Organizational Change. (3). Social change, with particular reference to social worker and social agency; principles of social change, sociology of social action, and an examination of social work delivery systems as bureaucracies. PREREQUISITE: senior majors or permission of instructor.

4932. Models of Social Intervention III. (3). Theory and application of group dynamics concepts as applied to individual in group, committee and community structures and functions, roles of social worker in these settings.

4933. Directed Individual Study. (1-4). Directed advanced reading, field study and/or research in special areas of social work, not otherwise provided in curriculum. NOTE: No more than 4 hours may be taken in any one semester. May be repeated for maximum of 6 semester hours credit. PREREQUISITE: Social Work major and permission of Director, Division of Social Work.

4934. Child Welfare Policy and Services. (3). Historic overview and contemporary application of child welfare policy; problems in policy development; contemporary American child welfare services in both public and private domains. PREREQUISITE: SWRK 3903.

THE FOGELMAN COLLEGE OF BUSINESS AND ECONOMICS

H500 BUSINESS ADMINISTRATION (BA)

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

3900. Study and Travel in Business and Economics. (3). Travel to important areas of world and conduct study of economic and business systems of selected countries under direction of the faculty of The Fogelman College of Business and Economics.

4000. Internship in International Business. (1-6). Practical operations of international business. Students placed for 1-8 month period with cooperating business firm operating in fields of international banking and finance, transportation, management, marketing, or accounting. Academic credit granted upon certification of satisfactory performance by cooperating business firm and upon acceptance by faculty of written research report by student.

4100. Seminar in Entrepreneurship. (3). Individual incentive with particular reference to the Executive in Residence and Entrepreneur Fellow Series during a single academic year. Emphasis on directed advanced reading and research papers. May be repeated for maximum of 6 semester hours. PREREQUISITES: ACCT 2020, ECON 2110, ECON 2120.

4900. Practicum in Research. (1-3). Actual problem-solving research activities in business and economics. Student assigned to project either being conducted currently by faculty member or one developed under supervision of faculty member. Whenever possible, project within student's major field of study. PREREQUISITE: senior status.

4990. Junior Achievement Advising Practicum. (3). Three-hour credit course designed for two-semester duration. Students will have I/P grade at end of fall semester, final grade given at end of spring semester. Professional organizations approved by The Fogelman College of Business and Economics and other groups may form advising teams under direction of faculty advisor for purpose of working with Junior Achievement. PREREQUISITE: upper division status and approval of Junior Achievement program advisor. (S/U).

ACCOUNTANCY

PROFESSOR JAMES THOMPSON, *Chairman*

Room 200A, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H510 ACCOUNTANCY (ACCT)

2010. Fundamentals of Accounting I. (3). Collection and analysis of financial transactions and communicating information they contain with periodic general purpose financial statements using double-entry accrued accounting techniques. Use of accounting procedures to routinize and control repetitive activities. Theory stressed with minimum necessary attention to clerical operations.

2020. Fundamentals of Accounting II. (3). General survey of cost accounting, income taxes, financial statement analysis, and special accounting analysis for managerial decision making. PREREQUISITE: ACCT 2010.

2720. Accounting Laboratory. (1). Working of practice set involving current accounting practice; hand and computer record keeping. PREREQUISITE: ACCT 2010.

3010. Managerial Accounting. (3). Accounting as it relates to managerial control. Includes financial statement analysis including price level changes, cost controls, budgeting, quantitative accounting techniques for decision making in management. Both semesters. PREREQUISITE: ACCT 2020.

3110. Intermediate Accounting I. (3). Review of accounting process and financial statements; cash and cash flow; receivables and short-term investments; inventories; liabilities and income taxes; operational assets, intangibles. PREREQUISITES: ACCT 2020, 2720.

3120. Intermediate Accounting II. (3). Corporations, formation and changes after formation; retained earnings; long-term investments; bonds; pensions; leases; accounting changes; income recognition and E.P.S.; Statement of Changes in Financial Position; financial reporting and changing prices. PREREQUISITES: ACCT 2720, 3110.

3310. Cost Accounting. (3). Cost systems, including job order, process, and standard, as management information systems for planning and control. Allocation of indirect costs, preparation of variable budgets, and determination of standard cost variances and their meaning. PREREQUISITE: ACCT 2020.

3510. Federal Income Tax I. (3). Regulations pertaining to individuals and partnerships; installment and deferred payment sales; introduction to corporate taxation. PREREQUISITE: ACCT 2720, 3110.

4210. Advanced Accounting. (3). Partnerships, consignments, installment sales, statement of affairs, receiver's accounts, statement of realization and liquidation, business combinations and consolidated financial statements, branch accounting, fund accounting, international accounting. PREREQUISITE: ACCT 3120.

4240-6240. Auditing. (3). Ethics in accounting practices, internal control, auditing standards and procedures, programs of audit of various accounts, construction and indexing of various papers, reports to clients; practice audit carried out. PREREQUISITES: ACCT 3120, 3310.

4460. Accounting Systems. (3). Problems involved in designing accounting systems for various types of businesses, including processing accounting data by electronic computer. PREREQUISITES: ACCT 3120, 3310, and MGMT 2750.

4620-6520. Federal Income Tax II. (3). Laws and regulations for corporations, estates and fiduciaries. Includes project on tax research. PREREQUISITE: ACCT 3510.

4540-6540. Governmental Accounting. (3). Accounting theory and practice applicable to federal, state, and local government and to non-profit institutions, budgetary control, control, classification, and use of funds; financial statements and reports. PREREQUISITE: ACCT 2020.

4610-6610. Seminar in Accounting. (3). Capstone course to be taken, preferably, the student's graduating semester. Impact on financial reporting of SEC and other regulatory agencies; in-depth calculation of E.P.S.; update on taxes; conceptual framework project of FASB, inflation accounting, financial statement analysis. Current pronouncements of FASB and AICPA committees. PREREQUISITE: two senior level accounting courses.

4810. Internship in Accounting. (3). Seniors, after receiving approval of accounting faculty, placed in offices of cooperating public accounting firms to receive on-the-job training under direct supervision of certified public accountant and general supervision of University accounting staff. Credit allowed upon acceptance of report of work done, verified by supervising accountant. Minimum time: 500 hours. PREREQUISITE: senior standing

ECONOMICS

PROFESSOR THOMAS O. DEPPERSCHMIDT,
Chairman

Room 400, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H520 ECONOMICS (ECON)

1010. Economic Issues and Concepts. (3). Critical examination of current economic issues facing the country. Discussion and use of elementary tools of economic analysis for familiarization with importance and applicability of economic reasoning. Will not satisfy either ECQN 2110 or 2120 requirement for College of Business Administration.

2110. Introduction to Macroeconomics. (3). Nature and functions of national economy. Includes supply and demand, national income and product, consumption and investment behavior, fiscal and monetary policy, and international trade and finance.

2120. Introduction to Microeconomics. (3). Tools of economics as they apply to operation of a market economy. Includes supply and demand analysis, consumer behavior, economic nature of production and cost, behavior of firms in both competitive and monopoly environments, income distribution theory and effects of government intervention in market system. PREREQUISITE: ECQN 1010 or 2110 recommended but not required.

2130. Principles of Macroeconomics (Honors). (3). Accelerated and intensified introduction to basic concepts of macroeconomics: supply and demand, national income and product, unemployment and inflation, monetary and fiscal policy, and international trade. PREREQUISITE: invitation of Department of Economics or admission to University Honors Program.

2140. Principles of Microeconomics (Honors). (3). Accelerated and intensified introduction to basic concepts of microeconomics: supply and demand, consumer behavior, production and cost, competitive and monopolistic market structure, income distribution, and effects of government intervention in market system. PREREQUISITE: invitation by Department of Economics or admission to University Honors Program.

3020. Economic Issues and Problems. (3). Current economic issues and problems in the United States. Emphasis on application of tools and analytical methods. PREREQUISITES: ECQN 2110, 2120

3210. Labor Economics. (3). Introduction to institutional aspects of American labor force and its organization wage and employment theory, economic role of collective bargaining, and basic ingredients of public policy toward labor organization. PREREQUISITE: ECQN 2120

3310. Microeconomic Theory. (3). Intermediate approach to price theory. Stress on market mechanism as device for resource allocation, attention to uses of basic microeconomic concepts in analysis of economic problems and in formulation of policy. PREREQUISITE: ECQN 2120.

3320. Macroeconomic Theory. (3). Intermediate approach to social income accounting and to functional relationships between important aggregate economic variables as well as to forecasting and social policy implications. PREREQUISITE: ECQN 2110.

3410. Economic Development of the United States. (3). Economic growth of American economy in general and problems of economic growth in South in particular. Emphasis on factors instrumental in that growth in various segments of economy. PREREQUISITE: ECQN 1010 or 2110.

3680. International Economic Development—An Ecological Perspective. (3). Process of economic development as adaptive interplay between man's needs and ways in which environment exploited to satisfy those needs in both developed and less developed countries. PREREQUISITE: ECQN 1010 or 2110 or consent of instructor.

3610. Money and Banking. (3). Monetary and banking history of leading countries with special emphasis on theory of money and banking in United States, deposit and earnings operations of individual banks, interbank and central bank relations. PREREQUISITE: ECQN 2110.

3810. Manpower Program Planning. (3). Planning of programs designed to solve manpower problems. Includes overview of manpower policy and legislative efforts to relieve manpower problems, methods of manpower research, goals of manpower planning, and approaches and techniques of manpower planning.

3811. Manpower Program Administration. (3). Administration of programs designed to solve manpower problems.

Includes management of manpower program units, special income and employment groups in labor force, types of manpower programs, delivery of manpower services, coordination of programs among manpower agencies, and evaluation of manpower programs. PREREQUISITE: ECQN 3210

4040. Economic Foundations of Legal Issues. (3). Economic theory and research methods used to explain legal foundations of market economy. Topics include property rights and contracts, free and regulated markets, environmental protection, consumer protection, economics of crime, and economics of discrimination. PREREQUISITE: ECQN 2120.

4111. Managerial Economics. (3). Direct application of economics to common business problems. Economic framework and empirical techniques of production and cost analysis, project evaluation, pricing, and demand analysis. PREREQUISITES: ECQN 2120 and MGMT 2711, 2750.

4120. Economic Forecasting. (3). Current economic thinking on problems of recession and inflation as background to economic forecasting. Methodologies of forecasting analyzed with examples of each. PREREQUISITE: MGMT 2711 or equivalent.

4130-6130. Government Regulation of Business. (3). Approaches to legal and legislative control of business—especially tax laws, commission regulations, and anti-monopoly legislation—in view of impact of each on industrial operating policy. PREREQUISITE: ECQN 1010 or 2110.

4140. Industrial Organization. (3). Economic analysis of two aspects of American industry: 1) historical study of new industries, of question of oligopoly market power, and of impact of merger waves, and 2) analysis of structure, conduct, and performance in industry using case studies in manufacturing, transportation and trade. PREREQUISITE: ECQN 2120.

4340. Comparative Economic Systems. (3). Theoretical framework underlying major alternative economic systems—capitalism, socialism, communism, fascism—with U. S., Sweden, the U. K., the U.S.S.R., and Spain as examples. Attention to problems and difficulties associated with integration of systems. PREREQUISITE: ECQN 1010 or 2110.

4350. International Economics. (3). Historical approach to theory of international trade; consideration to techniques of control over investment and trade, foreign exchange, balance of payments, and world interdependence. PREREQUISITE: ECQN 2120 or equivalent.

4410. Development of Economic Thought. (3). Historical development of economic thought. Attention primarily on emergence of Classical and Neoclassical thought, several dissident schools of thought, and twentieth-century economic thought. PREREQUISITE: ECQN 1010 or 2110.

4511. Urban and Regional Economics. (3). Theory and problems of regional economic development and evolving economic structure of urbanized areas. Analysis of principles of location of economic activity, interregional income and trade theory, and public policy for development of regions. PREREQUISITE: ECQN 1010 or 2110.

4610-6610. Central Banking and Monetary Management. (3). History and economic function of central banks. Analysis of role of monetary policy in achieving predetermined objectives; emphasis on interrelationships of monetary policy, central banking, and financial markets. PREREQUISITE: ECQN 3320 or 3610.

4720. Economics of the Public Sector. (3). Theory and practice of government expenditure, revenue, and debt, and problem of integrating them into meaningful fiscal policy. Alternative forms of taxation analyzed, especially from standpoint of economic effects. PREREQUISITE: ECQN 2120.

4740-6740. Health Care Economics. (3). Topics include unique nature of health care as economic good, health care market and its participants including patients, physicians, and hospitals, and financing and delivery of personal health care in United States and other countries.

4750. Economics of State and Local Governments. (3). Fiscal operations at state and local government levels in United States. Attention to state and local government tax structures; emphasis on property tax assessment and administration. Fiscal relations of intergovernment units, their expenditure elements, debt policy, budgeting, and financial administration. PREREQUISITE: ECQN 1010 or 2110.

4810-6810. Introduction to Economic Analysis. (3). Application of quantitative techniques of analysis to economic problems, including identification of meaningful relationships, formulating usable quantitative statements about them, and developing relevant analytical methods. PREREQUISITES: one year of college mathematics and ECQN 3310.

4910. Problems in Economics. (3). Students investigate issues surrounding selected economic problem and develop report of that investigation. May not be repeated for credit. PREREQUISITE: upper division standing and approval of department chairman.

4920. Senior Seminar in Economics. (3). Coordinated by department chairman and conducted by selected members of department. To integrate several fields and course areas pursued by undergraduate majors into meaningful whole. Required of all departmental majors in their last semester of undergraduate enrollment.

4930-6930. Economic Evaluation of Investment Projects. (3). Objective evaluation of proposed business and social projects. Concentrates on tools of cost-benefit analysis and provides instruction in making and controlling project budgets. PREREQUISITES: ECQN 1010 or 2110.

4996. Honors Thesis in Economics. (3). Independent research open only to students enrolled in Economics Department Honors Program. Honors thesis supervised by three-faculty committee selected by student and approved by Economics Honors Committee. PREREQUISITE: permission of Economics Department Honors Committee.

FINANCE, INSURANCE AND REAL ESTATE

PROFESSOR ROGER K. CHISHOLM,
Chairman

Room 402A, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H530 FINANCE, INSURANCE AND REAL ESTATE (FIR)

2220. Personal Financial Management. (3). Nontechnical dealing with broad areas of budgeting, insurance, borrowing and credit purchases, home ownership, investment, taxes, and family financial planning. NOTE: If taken by a student after he has received credit for FIR 3710 or 3810, credit will not count for BBA degree.

3011. Business Law. (3). Elements of law and legal principles encountered by businessman. Emphasis on basic law of contracts, sales and secured transactions, negotiable instruments, real and personal property, agency, forms of business organization, suretyship, insurance contracts and torts.

3130. The Legal, Social, and Political Environment of Business. (3). Emphasis on legal, social, and political environment in which business and its executives exist. Legal, social, and political forces that affect business operations. Lectures and case discussions.

3310. Real Estate Principles. (3). Basic terminology, principles and issues. Topics include market analysis, real estate law, instruments, legal descriptions, appraisal, investment, finance, brokerage, property management, and development.

3410. Business Finance. (3). Integration of principles of financial management with institutional finance. Current topics of managerial finance including working capital management, capital budgeting, and acquisition of funds. PREREQUISITE: ACCT 2020 and MGMT 2710.

3710. Investments. (3). Principles of investment in stocks and bonds. Includes fundamental, economic, and technical analysis; measurable and unmeasurable aspects of risk; portfolio management, and the psychological aspects of the market. PREREQUISITE: ECQN 2110 and MGMT 2710.

3720. Financial Markets. (3). Survey of important funds markets, institutions and characteristics peculiar to them. Sources of supply and of demand for funds in each market, and complex interrelations between several markets analyzed.

3770. Commodity Futures Market. (3). Mechanics of trading including the contract, commodities traded, exchanges involved, etc. Transfer of risk and stabilization of prices through futures trading. Role of speculators. Buying/selling strategies including hedging used by farmers, commodity marketers, speculators, and processors.

3810. Principles of Risk and Insurance. (3). Nature and handling of risk in personal and business situations. Emphasis on property, liability and life exposures to loss. Designed for non-insurance major as well as a basis for advanced study.

4011-6011. Estate Planning and Law of Testation. (3). Survey of law of taxation as applied to transmission of property by gift or death and its impact upon accumulations of wealth. Estate planning from individual viewpoint designed to create, maintain, and distribute maximum estate possible. PREREQUISITE: FIR 3011 or consent of the instructor.

4110. Special Topics. (3). Current topics in one of following areas: Finance, Insurance, Real Estate, or Business Law. Course emphasis will vary each semester. Specific course descriptions available through FIR Department prior to enrollment. May be repeated once with change in topic area. PREREQUISITE: consent of instructor.

4310-6310. Real Estate Law. (3). Law and legal instruments as applied to real estate. To serve needs of property owners and those engaged in real estate business. PREREQUISITE: FIR 3310.

4320-6320. Real Estate Finance. (3). Examination and analysis of source of funds for financing all kinds of real estate transactions, including FHA and VA types. PREREQUISITE: FIR 3310.

4330-6330. Determinants in Housing Finance. (3). Consideration of determinants of private and public demand for housing; relationships between construction and economic trends; new town legislation, urban renewal and development, improving environment and housing for low income groups, criteria for assessing public policy, policy implementation, role of private enterprise in developing, maintaining and improving housing. PREREQUISITE: FIR 3310.

4340-6340. Real Estate Appraisal. (3). Basic terminology, principles, procedures, and issues. Topics include the nature of value, principles of value, appraisal process, market approach, cost approach, capitalization of income approach, gross rent multiplier approach, and appraisal reports. PREREQUISITE: FIR 3310.

4350. Real Estate Investment Analysis. (3). Real Estate investment principles and practices reviewed, analyzed and evaluated. Emphasis on tax considerations, investment strategy and model building. PREREQUISITE: FIR 3310.

4440. Managerial Finance. (3). Analytical approaches to firm's financial decisions; including current asset management, capital budgeting, cost of capital, capital structure determination, and dividend policy. PREREQUISITE: FIR 3410.

4550. International Finance. (3). Financing international trade and investments; foreign exchange markets and exchange rates; balance of payments; current developments in international financial cooperation.

4610-6610. Casas in Managarial Finance. (3). Application of tools and principles introduced in previous courses to develop up-to-date problem solving techniques. Cases approached from standpoint of top level management and utilize both quantitative and qualitative analysis. PREREQUISITE: FIR 3410, 4440.

4720-6720. Operations and Manegement of Financial Institutions. (3). Exposure to financial policies and decision-making that are peculiar to financial institutions in United States. Profitable management of funds consistent with adequate standards of liquidity and solvency. Offered every other year. PREREQUISITES: ECON 3610, FIR 3410, and FIR 3720, or consent of the instructor.

4770. Security Analysis and Portfolio Manegement. (3). Development of techniques for finding actual worth of securities, primarily stocks and bonds. Portfolio management involves selection, timing, diversification, and other aspects of supervising investment funds. PREREQUISITE: FIR 3710.

4810-6810. Property end Liability Insurance I. (3). Forms and functions of fire, marine, automobile, general liability and other types of property and liability insurance. Emphasis on business and industrial applications. PREREQUISITE: FIR 3810 or consent of instructor.

4811-6811. Property and Liability Insurance II. (3). Specialized insurance contracts, problems in risk identification, measurement, and specification of business property and liability exposures. Captive insurance companies, P & L insurance markets, and current problems of business arising from social, legal and economic definitions of loss and responsibility. PREREQUISITE: FIR 4810 or consent of instructor.

4820-6820. Life and Health Insurance. (3). Functions of life and health insurance. Emphasis on economic security needs, human behavior and the problems related to death and dying. Individual life, health and annuity contracts and social insurance. Concepts in risk selections and regulation. PREREQUISITE: FIR 3810 or consent of instructor.

4821-6821. Advanced Life and Health Insurance. (3). Legal, mathematical and financial aspects of life and health insurance. Elements on contract formation, creditor rights, disposition of the proceeds of life insurance, ratemaking, reserve determination, surplus distribution investments of life insurers, interpreting financial statements. PREREQUISITE: FIR 4820 or consent of instructor.

4840-6840. Multiple Line Insurance Company Operations. (3). Company and industry functions other than contracts, including rating, rate-making, reserves, auditing, underwriting, reinsurance, claims, production engineering, and governmental supervision. PREREQUISITE: FIR 3810.

4850. Social Insurance. (3). Nature and causes of economic insecurity in our society; emphasis on broader aspects of public and private programs; Social Security Act, Unemployment Compensation, Workmen's Compensation, Medicare and other approaches. De-emphasizes detailed facts and statistics otherwise readily available from various governmental agencies.

4860-6860. Employaaa Benefit Programs. (3). Life, health and pension benefit programs from the viewpoint of the benefit planner. Topics include the reasons for providing such programs, alternate methods for providing benefits, and broadly designing specifications for benefits.

4870. Risk Managament. (3). Problems of risk manager in small and large firms, methods of handling risk that serve as alternatives to obtaining insurance, and brief survey of insurance as standard for comparisons.

4910. Problems in Finance, Insurance, or Real Estate. (1-3). Student will carry on approved research projects in the major area under supervision of staff members. PREREQUISITE: senior standing and permission of the department chairman.

4911. Internship in Finenca, Insurance, and Real Estate. (1-6). Internship in business organization to gain on-the-job experience in real-life environment. Project to be approved and supervised by department faculty. Credit allowed only after acceptance of report. PREREQUISITE: Senior standing and minimum GPA of 2.75.

MANAGEMENT

ASSOCIATE PROFESSOR

DONALD W. SATTERFIELD,

Acting Chairman

Room 202, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H550 MANAGEMENT (MGMT)

1010. Introduction to Business. (3). Acquaintance with major institutions and practices in business world. Management fields include such areas as personnel management, labor-management relations, and production management. Other major fields include such areas as business law, accounting, finance, and marketing. Elementary concepts of business, orientation for selection of specific major, information on business career opportunities. Open to freshmen only. NOTE: If taken by students with 25 hours or more, credit will not count for BBA degree.

2710. Business Statistics I. (3). (3710). Introduction to basic statistical procedures for analysis and interpretation of business data. Topics include collection and presentation of data, probability theory, measures of central tendency and variability, sampling distributions, estimation of parameters,

and elementary decision theory. PREREQUISITES: MATH 1211 or higher.

2711. Business Statistics II. (3). (3711). Topics include hypothesis testing, nonparametrics, index numbers, analysis of variance, simple and multiple techniques of regression and correlation analysis, and time-series analysis. PREREQUISITE: MGMT 2710.

2750. Introduction to Management Information Systems with Computer Applications. (3). Introduction to major concepts in business information systems. Students will be required to solve business problems utilizing computer in an on-line interactive environment. PREREQUISITE: MATH 1211.

2760. Applications Program Development I. (3). Introduction to computer programming in a business environment. Emphasis on structured design, development, testing, implementation, and documentation using COBOL. PREREQUISITE: COMP 1000, MGMT 2750.

2780. Systems Analysis Methods. (3). Overview of systems development life cycle. Emphasis on current systems documentation through use of classical and structured tools and techniques for describing process flows and data flows, data structures, file and input/output design and program specifications, data gathering and information reporting activities, transition from analysis to design. PREREQUISITE: MGMT 2760.

3110. Organization and Management. (3). Management functions and basic concepts and principles of management. Includes planning, decision-making, organization, coordination and control, and basic elements of production management. PREREQUISITE: junior standing or permission of department chairman.

3215. Personnel Administration and Industrial Relations. (3). Role and history of modern labor organizations; job analysis; planning for recruitment, selection, training and utilization of human resources; compensation; employee morale, health and safety; separation; impacts of the Equal Employment Opportunity Act. PREREQUISITE: Junior standing or permission of department chairman.

3510. Production and Operations Management I. (3). Introduction to management of production function in all types of organizations. Basic understanding of operations of function necessary for systematic analysis of problems associated with creation of goods and services. PREREQUISITE: MGMT 2711.

3750. Applications Program Development II. (3). Development of programs and systems of programs utilizing sequential and random access file structures and processing techniques. Emphasis on structured design, development, testing, implementation and documentation. PREREQUISITE: MGMT 2760.

3760. Operations Research. (3). (4760). Introduction to decision making, concentrating on problem solving technique. Emphasis on problem definition, model construction, and various solution techniques including linear programming, project analysis and control, queuing methods, and simulation. PREREQUISITES: MGMT 2711 and 2750, or equivalent.

3780. Structurad Systems Analysis and Design. (3). Advanced study of structured systems development. Emphasis on strategies and techniques of structured analysis and structured design for producing logical methodologies aiding in dealing with complexities in development of information systems. PREREQUISITE: MGMT 2760.

4210-6210. Human Resources Management. (3). In-depth examination of selected issues in human resources management utilizing special problems, topics, and cases. Major issues include planning, employment, development, utilization, performance appraisal, maintenance, and separation of human resources. PREREQUISITE: MGMT 3110, 3215.

4220-6220. Collective Bargaining. (3). Labor-management relations from standpoint of collective bargaining contracts; emphasis on process of negotiating agreements, including procedures, tactics, and subject matter. PREREQUISITE: MGMT 3110, 3215.

4230-6230. Labor Legislation. (3). Historic and philosophic background of labor legislation; emphasis on recent legislation in labor area and effect of these laws on social and economic institutions. PREREQUISITE: MGMT 3110, 3215.

4240-6240. Compansation Administration. (3). Systematic examination of administration of wage and salary as tool of management. Through use of job descriptions, job analysis, and job evaluation methods, instruction in techniques of rationalizing wage structures. Analyses of some outstanding considerations which must be taken into account in installing and administering wage programs are made. PREREQUISITE: MGMT 3110, 3215.

4420-6420. Orgzenizational Behavior in Business. (3). Human relations as applied to people at work in all kinds of and communication and group processes. PREREQUISITE: MGMT 3110.

4421. Motivation and Leadership. (3). Identification of theoretical and practical approaches to influencing and motivating people. Findings of numerous theorists compared and contrasted to explore relative effectiveness of various leadership styles and motivation theories from managerial view. Experimental based learning methods used to aid diagnosis and understanding of individual's influence styles. COREQUISITE: MGMT 4420.

4510. Production and Operations Management II. (3). Emphasis on entire production system including interface with engineering, role of materials management, relationship to data base management, and problems of systems coordination. Master planning, value analysis, and organizational aspects of production environment critically examined. PREREQUISITES: MGMT 3110, 3510.

4511. Materials Management. (3). In-depth course in planning and control of materials requirements. Order point models and systems and requirements planning techniques studied. Aggregate inventory management, distribution, interplant inventories, and design of materials management systems emphasized. PREREQUISITES: MGMT 3110, 3510.

4710. Business Policy. (3). Advanced problems in determination, execution, and control of strategic management process in light of changing environments in which organizations operate. PREREQUISITES: MGMT 3110 and senior standing in The Fogelman College of Business and Economics. Must be taken in last or next to last semester before graduation.

4711-6711. Intermediate Statistical Analysis. (3). In depth study of business decision making using advanced statistical concepts including additional probability distributions, use of samples and sample design, non-parametric methods, and advanced techniques of analysis through use of correlation analysis and analysis of variance. Computerized statistical programs utilized to solve complex problems. PREREQUISITES: MGMT 2711 and 2750.

4755. Business Oata Management. (3). Focus on (1) designing, writing, and debugging programs written in a high-level language for common business applications involving direct access files, (2) selecting appropriate file organization, (3) designing data models, and (4) evaluating Commercial Data Base Management Systems. PREREQUISITES: MGMT 3750, 3780.

4780-6780. Applied Software Oevelopment Project. (3). Application of programming and systems development concepts, principles and practices to a comprehensive system development project. Team approach used to analyze, design and document realistic systems of moderate complexity. Use of project control techniques, formal presentations and group dynamics in development of information system. Development of database to support system. PREREQUISITE: MGMT 3760, 4755.

4785. Information Systems Resource Management and Planning. (3). A broad overview of the information systems management function with particular attention to planning, organizing and controlling user services and to managing the computer information systems development process. PREREQUISITE: MGMT 4780.

4790-6790. Management Information Systems. (3). Problems and techniques concerning design and installation of responsive systems brought together; special attention to executive use of system's product. System approaches utilizing current planning and control models studied through current literature and texts in computer field. PREREQUISITES: MGMT 2750 and one college level mathematics course; junior standing, or permission of instructor.

4810-6810. International Management. (3). Fundamental knowledge of contemporary managerial problems as presented in foreign-influenced environment. Uniqueness of problems in planning, control, choosing foreign associates, plant location, labor, bureaucracy, legal constraints, and trade with foreign governments highlighted by texts and through discussion of articles from current business periodicals. PREREQUISITES: MGMT 3110 and MKTG 3010.

4820. Venture Initiation Menegement. (3). Initiation process of new business venture. Participants as teams develop detailed development plan covering all phases of business initiation and development. PREREQUISITE: completion of 3000 level Business Administration Core Courses or consent of instructor.

4910. Management Problems. (1-3). Student carries on approved research projects in his major area under supervision of staff members. PREREQUISITE: senior standing and permission of department chairman.

MARKETING

ASSOCIATE PROFESSOR

C. L. ABERCROMBIE, *Chairman*

Room 302, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H560 MARKETING (MKTG)

3010. Principles of Marketing. (3). Comprehensive study of structure and functions of marketing system in the firm, economy, and society. Includes analysis of target markets, environments, and managerial aspects of marketing practices. PREREQUISITE: junior standing, ACCT 2010, and ECON 2120, or permission of department chairman.

3012. Consumer Behavior. (3). Why consumers behave as they do. Psychological and sociological theories and principles applied to current marketing problems. PREREQUISITE: MKTG 3010 or permission of instructor.

3140. Advertising Fundamentals. (3). Field of advertising including agencies, media, layout, copy, typography. PREREQUISITE: MKTG 3010 or permission of instructor.

3170. Advertising Problems. (3). Case study of advertising functions, emphasizing determination of advertising strategy, planning of creative strategy; planning of media strategy; evaluation of advertising results and introduction to organization and management of advertising function. PREREQUISITE: MKTG 3140.

3320. Retailing Fundamentals. (3). Changing concepts of retailing from management viewpoint. Principles that underlie successful operation of enterprises distributing products and services to ultimate consumers. PREREQUISITE: MKTG 3010 and ACCT 2010 or permission of department chairman.

3330. Reteil Merchandising Menegement. (3). Buying function at retail level, emphasis on selection, timing, pricing, merchandising, and control of inventory investment. Long- and short-range objectives and policies as they effect merchandise investment. PREREQUISITE: MKTG 3320.

3410. Sales Fundamentals. (3). Basics of personal selling; preparation, personality development, communications, sales

interview techniques, ethics, and career opportunities. Selling skills developed via sales presentations, role playing, audio-visual self-observation, and use of sales aids. PREREQUISITE: MKTG 3010 or permission of instructor; MKTG 3012 recommended but not required.

3610. Physical Distribution. (3). Physical distribution system within an organization. Emphasis on transportation, customer service, inventory, warehousing and packaging functions. PREREQUISITE: MKTG 3010.

3620. Transportation and Logistics Systems. (3). Economic, social and political aspects of transportation system of the United States. Interrelationships among transportation, physical distribution, logistics, marketing, production, and financial management as they impact flow of raw materials and finished goods through the firm. PREREQUISITE: MKTG 3610.

3630. Traffic Management. (3). Detailed analysis of freight traffic function within firm's logistics system. Includes rate and classification systems, claim liability, shipping document procedures, carrier selection, and other aspects associated with organizing and operating traffic department. PREREQUISITE: MKTG 3610 or permission of department chairman.

3710. Agrimarketing Methods and Institutions. (3). Government, cooperative, and private institutions affecting agrimarketing. Analysis of marketing functions as applied to marketing of supplies and services to the farm, as well as agricultural products from the farm to the consumer.

4080. Marketing Research. (3). Research methods and procedures used in field of marketing to help solve business problems. PREREQUISITES: MGMT 2711, 2750, and 6 hours of marketing including MKTG 3010.

4150. Advertising Media and Campaigns. (3). Characteristics and uses of media by companies, products lines and reasons for selection. Last part of semester devoted to development of campaign for particular firm. PREREQUISITE: MKTG 3140.

4210. Industrial Marketing. (3). (3220) Marketing to the organization buyer (includes business, governmental, and institutional buyers). All aspects of the marketing mix (including personal selling) and marketing research as applied to industrial marketing. PREREQUISITE: MKTG 3010.

4220. Purchasing. (3). Policies for effective and efficient procurement of goods and services for today's industry. Close attention to measurement and evaluation of purchasing performance. PREREQUISITE: MKTG 3010.

4410. Sales Management. (3). Sales management functions of recruiting and hiring, training and assimilating, planning, controlling and motivating, and sales analysis. Role of personal selling in the promotional mix and sales objectives of management. PREREQUISITE: MKTG 3010.

4420. Sales Training. (3). One of most important staff activities within any marketing department — training of sales personnel. Designed to develop salesmanship, art of persuasion, into teachable subject which will apply to business world. How to become a sales trainer and to develop understanding of training director's responsibilities. PREREQUISITE: MKTG 3410.

4430. Sales Promotion. (3). (3430). Supplements, supports, and coordinates other two promotional functions of advertising and personal selling. Emphasis on various media associated with sales promotion and on need to coordinate entire promotional mix. PREREQUISITE: MKTG 3010.

4530. International Marketing. (3). Bases and promotion of foreign trade; international marketing organizations and methods; technical and financial features of international marketing. PREREQUISITE: MKTG 3010.

4610. Transportation and Policy Alternatives. (3). Transportation policy alternatives and problems viewed in relation to their effects on carriers, transport users and general public. Evolution of public control and promotion in transportation including role of regulatory commissions. PREREQUISITE: 6 hours in transportation and logistics courses or permission of department chairman.

4620. Carrier Management. (3). Problems confronting managers of transportation companies. Includes carrier organization, operations, marketing strategies, finance, control, sales, labor relations, and shipper-carrier interaction. PREREQUISITE: 6 hours in transportation and logistics courses or permission of department chairman.

4692. Seminar in Transportation and Logistics. (3). Problems in transportation and logistics. PREREQUISITE: 9 hours in transportation and logistics courses or permission of department chairman.

4720. Cases in Agrimarketing. (3). Cases in a mature agrimarketing industry where knowledge of past problems has useful application to marketing in the future.

4760. International Agricultural Marketing. (3). Historical background of governmental policies and involvement; emphasis on current institutions, service organizations, marketing

techniques, and financial considerations involved in international marketing of agricultural products and services.

4901. Management of Marketing Strategies. (3). Comprehensive study of marketing strategies and how implemented. Computer games and cases as well as "real-world" problems to illustrate application of marketing concepts in practical manner. PREREQUISITES: MKTG 3012, 3610, and 4080.

4910. Problems in Marketing. (1-3). Students carry on approved research projects in their major area under supervision of staff members. PREREQUISITE: senior standing and permission of department chairman.

4991. Marketing Internship. (3). Seniors majoring in marketing may, after receiving approval of department chairman and professor concerned, obtain actual experience by working minimum of 200 hours in approved marketing positions. May not be enrolled for more than 12 academic hours when enrolling for credit in work experience.

OFFICE ADMINISTRATION

PROFESSOR HERMAN F. PATTERSON,

Chairman

Room 300, The Business Administration Building

In addition to specific prerequisites, junior standing or permission of the department chairman is a prerequisite for all 3000 and 4000 level courses in The Fogelman College of Business and Economics.

H570 OFFICE ADMINISTRATION (OFAD)

1210. Elementary Typewriting. (3). Use and operation of parts of typewriter, mastery of keyboard, simple business and professional letters and reports, introduction to tabulations.

1220. Intermediate Typewriting. (3). Typing of different styles of business letters, tabulations, and manuscripts; developing typing rate of 45 words or more per minute.

1230. Keyboarding and Information Processing. (3). Emphasizes development of basic keyboarding skills necessary for efficient operation of computer terminals and related software/hardware. Information processing procedures stressed. Computer terminals and related equipment used to develop skills in using computers for business and personal activities.

1240. Introduction to BASIC Programming for Business. (3). Programming methodology using BASIC language and business applications. Designing and writing a variety of programs for use on CRT terminals, minicomputers, and microcomputers. Emphasis on financial, accounting, management, economic, and office areas.

2120. Fundamentals of Shorthand. (3). Basic principles of Gregg shorthand — alphabet, brief forms, phrases, and abbreviations, beginning dictation and pre-transcription training. PREREQUISITE: OFAD 1210 or equivalent.

2130. Intermediate Shorthand. (3). Review of shorthand theory, taking shorthand and transcribing accurately. PREREQUISITES: OFAD 1220 and 2120 or equivalents.

2210. Introduction to Law. (3). Nature and process of law for the legal assistant. Includes such areas as functions of attorney, development of law, overview of system's justice and legal institutions, and survey of scope of law.

2211. Law Office Management. (3). Basic principles of management and necessary techniques and systems for efficient law office operation.

2212. Legal and Office Applications of Accounting. (3). Review of accounting theory. Emphasis on application of accounting principles to operation of a law office. PREREQUISITES: ACCT 2010, 2020.

2213. Legal Research and Writing I. (3). Emphasis on analysis and research of legal problems, interpretation of legal decisions and statutory materials, and communication of facts and ideas.

2214. Legal Research and Writing II. (3). State rules of practice and procedure. Emphasis on drafting pleadings, motions, memoranda of law, and appellate briefs. The Code of Professional Responsibility examined through class discussion and hypothetical cases. PREREQUISITE: OFAD 2213.

2216. Tennessee Courts and Procedure. (3). Introduction to court structure and to Tennessee Rules of Civil Procedure which govern the system.

2216. Family Law. (3). Domestic relations course for the paralegal. Substantive and procedural law in family law. Includes marriage, women's rights, minor's disabilities,

annulment, child custody, and adoption. Primary emphasis on Tennessee statutes and case law.

3140. Advanced Shorthand. (3). Review of shorthand principles, daily speed practice, development of transcription skill for production of mailable transcripts. PREREQUISITES: OFAD 1220 and OFAD 2130 or equivalent.

3217. Investigation. (3). Legal assistant's role in gathering basic facts, interviewing key witnesses, searching documents, and preserving facts and evidence gathered for trial. Problems of confidentiality and of formal and informal cooperation with opposing counsel.

3218. Contracts. (3). General survey of contract law, definitions and classifications of contracts, capacity of parties, legal effect of offer acceptance and consideration. Introduction to provisions of Uniform Commercial Code.

3219. Labor Law for Paralegals. (3). History of labor and statutory basis for American law. Grievance and arbitration, employment discrimination, and workers compensation included.

3220. Litigation and Evidence. (3). In-depth coverage of civil litigation in state and federal courts from client interview and jury selection through appeals and rules of evidence with regard to witnesses and exhibits. State court practice based upon Tennessee Code of Civil Procedure but with view toward adaptability to other states.

3250. Advanced Typewriting. (3). Review of business letter styles, manuscripts and reports, statistical tables. PREREQUISITE: OFAD 1220.

3510. Business Communication. (3). Communication theory applied to solving of business problems. Presentation of oral and written case solutions; emphasis on letters, memorandums, short reports, and job applications. Selection and use of research sources. Effective business coordination and control through communication; communicating in political and ethical environment. PREREQUISITE: Freshman English.

4161-4162. Technical Dictation. (3). *Only one may be taken for credit.* PREREQUISITES: OFAD 1220, 2130.

4161. Legal: Review of Gregg shorthand theory, shortcuts, vocabulary needed to be a legal stenographer.

4162. Medical: Review of Gregg shorthand theory, shortcuts, vocabulary peculiar to the medical profession.

4270. Secretarial Typewriting and Office Machines. (3). Instruction and practice in use of secretarial office machines including executive typewriters; transcribing from voicewriting equipment; ink, spirit and offset duplication; copying machines. PREREQUISITE: OFAD 3250.

4320. Applied Secretarial Practice. (3). Qualifications, duties and training of secretary; requirements for employment; organization of work; telephone etiquette; business reference books; receptionist techniques. PREREQUISITE: OFAD 1220 or equivalent.

4330. Records Management and Control. (3). Handling of incoming and outgoing mail; filing procedures; installation, administration, and control of geographic, numeric, subject and Soundex filing systems; practice in several types of filing.

4340. Office Model Simulation. (3). Realistic office-like situation for training students to be secretaries or business education teachers. Students assume role of "employee" while performing interrelated tasks in office model designed to simulate actual office. PREREQUISITES: OFAD 4270, 4320.

4350. Office Internship. (1-3). Laboratory and office experience for advanced students in business and office education. May be repeated for a maximum of 3 hours. PREREQUISITE: consent of department chairman.

4410-6410. Office Management. (3). Modern methods in office organization and management, scientific office management, office reports, office correspondence, calculating and checking, filing, records retention, duplicating, handling mail, planning procedures, planning for equipment, office machines, automation, planning for office space, physical working conditions and office layout.

4420-6420. Word Processing Theory and Concepts. (3). Emphasizes concepts and development of techniques and basic applications of word processing. Includes word processing systems and procedures, equipment selection, layout and design of word processing centers, dictation systems and procedures, and human aspects of word processing systems.

4430. Word Processing Applications. (3). Emphasis on operation of magnetic media automatic typewriters and visual display word processing equipment. Training in equipment operations and applications design; simulated office and word processing projects. PREREQUISITE: OFAD 1220 or ability to type 40 words per minute.

4910. Problems in Office Administration. (1-3). Directed individual study in major area under supervision of staff members. PREREQUISITE: permission of department chairman.

THE COLLEGE OF COMMUNICATION AND FINE ARTS

K100 COMMUNICATION/FINE ARTS (CCFA)

Students who wish to apply for credit for experiential learning may obtain guidelines from the Dean of the College of Communication and Fine Arts. Fees for this credit are listed in *Fees and Charges*.

1900-1999. Introductory Level Experiential Learning in (descriptive title).

2900-2999. Intermediate Level Experiential Learning in (descriptive title).

3900-3999. Advanced Level Experiential Learning in (descriptive title).

ART

ASSOCIATE PROFESSOR CAROL CROWN,
Chairman

Room 201, Jones Hall

Transfer students seeking advanced standing in art are required to submit a portfolio.

K020 ART (ART)

1101. Introduction to Art. (3). Fundamental principles of the fine arts; understanding of art products and processes as basis for judgment and enjoyment of all types of art expression. *Does not meet degree requirements for the B.F.A. or the B.A. in Art.*

1111. Art for Non-Arts Majors. (3). Introductory creative experiences with both fine art and craft processes. Varied activities may include drawing, painting, printmaking, sculpture, pottery, weaving and woodcrafts. *Does not meet degree requirements for the B.F.A. or the B.A. in Art History.*

1201. Basic Design. (3). Basic design factors of line, value, texture, form, and space in problem solving approach to stimulate student's visual perception and to encourage inventive manipulation of tools, materials, and techniques. Development of vocabulary for professional practice encouraged through lectures, discussions, and class critique.

1204. Color Fundamentals. (3). Light and color in relation to form. Mixing of colors and notation of hue, value, chroma relationships. Interaction of color, color harmony, psychology, and symbolism in a variety of mediums. PREREQUISITE: ART 1201

1311. Beginning Drawing. (3). Introduction to materials and techniques of basic drawing

1314. Figure Structure. (3). Analysis of structure of human figure; emphasis on contour, gesture, and volume. PREREQUISITE: ART 1311.

2101. World Art I. (3). Development of visual arts from prehistoric times through medieval period, their use by man as social, cultural, and educational force; brief survey of art of Far East.

2102. World Art II. (3). Continues (but does not pre-suppose) World Art I; development of visual arts from medieval period through Renaissance to present.

2201. Design. (3). Continued study of the elements of design, using variety of materials and methods. PREREQUISITES: ART 1201 and 1204, or permission of instructor

2202. Design. (3). Continuation of ART 2201; attention to three-dimensional problems. PREREQUISITE: ART 2201 or permission of instructor.

2213. Lettering and Layout. (3). (Same as CMUS 2213). Introduction to graphic design: problems involving use of typography; principles and techniques of layout, and development of roughs and comprehensives.

2221. Graphic Production. (3). (Same as CMUS 2221). Preparation of copy for photomechanical reproduction: printing processes, halftone and line reproduction, selection and use of type and paper.

2233. Interior Drafting Practices. (3). (2231). Introduction to equipment, standards and requirements of interior design drafting practices through lectures and studio space planning assignments. PREREQUISITES: ART 1201, 1311, and 1314, or permission of instructor.

2234. Interior Color and Composition. (3). (2232). Application of color theory and design-composition to specific requirements of interior design practice, through lectures and studio assignments. PREREQUISITES: ART 1204 and 2201, or permission of instructor

2312. Perspective Drafting. (3). (2311). Theory and practice of perspective projection drafting and various applications to graphic design and architectural interiors.

2313. Drawing. (3). Advanced problems of communication through exploration of varied graphic media and methods. PREREQUISITES: ART 1311 and 1314, or permission of instructor.

2314. Drawing. (3). Continuation of ART 2313, emphasis on personal expression. PREREQUISITE: ART 2313, or permission of instructor.

2351. Introduction to Printmaking. (3). Printmaking processes: relief, intaglio, planography, and stencil, focusing on relief and screenprinting.

2511. Sculpture. (3). Introduction to basic materials and techniques of sculpture.

2701. Photography I. (3). (3224). Basic techniques and processes of black and white still photography. History and aesthetics of photography as fine art. Emphasis on personalized perception and seeing photographically.

2702. Photography II. (3). (4224). Exploration of black and white still photography as means to personal expressive statement and self-discovery. Initial emphasis on portraiture. PREREQUISITE: ART 2701 or permission of instructor

3103. Architecture and the Interior Environment. I. (3). (3101). Historical development of major European periods and styles in, primarily, residential architecture, interiors, decorative arts and furniture from early Renaissance through mid-18th century

3104. Architecture and the Interior Environment II. (3). (3102). Historical development of major European periods and styles from mid-18th century into 20th century; comparisons of American developments beginning with mid-17th century.

3221. Graphic Design. (3). Introduction to methods and materials of graphic design, with problems which utilize visual communication. PREREQUISITE: ART 2213 and 2221.

3222. Graphic Design. (3). Continuation of ART 3221, offering further study in techniques of newspaper, magazine, and direct-mail layout. PREREQUISITE: ART 3221

3223. Packaging and Display. (3). (Same as CMUS 3223). Package designing and display techniques. PREREQUISITES: ART 2213 and 2221

3233. Components of Interiors. (3). (3231). Introduction to resources of interior furnishings industry through lectures and studio assignments: wall and floor coverings; drapery fabrics and upholstery. Development of estimates for wall coverings and window treatments. PREREQUISITES: ART 1204 and 1311, or permission of instructor

3234. Interior Design Studio I. (3). (3232). Application of material covered in basic interior design courses to theoretical designs for complete environments. Space planning and furnishing studies developed through studio assignments. PREREQUISITES: ART 2233, 2234, and 3233, or permission of instructor.

3235. Commercial Lighting Design. (3). (4234). Comprehensive study of lighting sources and principles, color and applications, including circuiting, switching, dimming systems, task-ambient lighting and industry resources. The Lumen Formula and Area Method of design applied through studio assignments and lectures. PREREQUISITES: ART 2233, 2234, and 3233, or permission of instructor.

3236. Rendering for Interiors. (3). (4233). Comparative application of variety of techniques using black-white and color mediums for interior perspective illustration. Lectures and studio assignments in line, texture, shade-shadow, volume, color and free-hand drawing. PREREQUISITES: ART 2233, 2234, and 2312, or permission of instructor.

3237. Interior Construction Drafting. (3). (4551). Principles of building construction and their application through draftings for both residential and commercial installations. Building methods and materials studied through lectures and studio assignments. PREREQUISITE: ART 3234 or permission of instructor

3238. Interior Cabinetwork Drafting. (3). (4552). Principles of cabinetworking, wood joints, laminating, contouring and hardware required for their application to detail draftings for both commercial and residential custom design. Drafting procedures studied through lectures and studio assignments. PREREQUISITE: ART 3237 or permission of instructor

3240. A Perspective on Contemporary Design Concepts. (3). Studio course which includes study of theories and concepts; emphasis on contemporary materials and methodology. Investigation of national and international trends on what a designer is and does within broad range of options. PREREQUISITE: ART 2202.

3331. Painting. (3). Preliminary course in theory and practice of oil painting

3332. Painting. (3). Continuation of ART 3331; attention to essentials of still-life, landscape, and portrait painting.

3351. Intaglio. (3). In-depth study of metal plate intaglio printmaking processes: engraving, drypoint, etching, aquatint. Introduction to color intaglio and mixed media including relief printing. Emphasizes personal expression. PREREQUISITE: ART 2351 or permission of instructor.

3352. Lithography. (3). In-depth study of stone lithography. Introduction to aluminum plate litho; color litho, and mixed media color printing. Emphasizes personal expression. PREREQUISITE: ART 2351 or permission of instructor.

3411. Art Experiences for Elementary Teachers. (3). Introduction to skills and methods for school art program of both studio and art appreciation activities; emphasis on materials and ideas for children's art expression and development

3413. Materials and Methods in Teaching Elementary School Art. (3). Aid to future teachers in understanding child art, encouraging art expression, and preparing art teaching materials for children. PREREQUISITES: ART 1101 (or 2101 and 2102) and 3411

3421. Art Experiences for Secondary School Art Teachers. (3). Artcrafts in secondary school art program; work with equipment, supplies, processes, and ideas in art craft program. PREREQUISITE: ART 2202 or 3411, or permission of instructor

3511. Sculpture. (3). Problems of sculptural form as expressed in metal, wood, and related materials.

3512. Sculpture. (3). Continuation of ART 3511; emphasis on techniques.

3523. Ceramics. (3). Introduction to clay and ceramic process. Emphasis on thoughtful, purposeful exploration of medium, regarding both pottery vessel and nonvessel object

3524. Ceramics. (3). Continuation of ART 3523. Some consideration to fundamental historical and aesthetic aspects peculiar to ceramics as a studio medium.

3541. Packaging and Display. (3). Continuation of ART 3223; attention to trademark designs, package rendering and practical displays. PREREQUISITE: ART 3223

3701. Photography III. (3). Continuation of ART 2702. Closer examination of several key photographers' work as point of departure for student work. How student work relates to traditions. PREREQUISITE: ART 2702, junior standing, or permission of instructor

4121-6121. Ancient Art of the Near East. (3). Architecture, sculpture, painting and minor arts in Egypt and Ancient Near East

4122-6122. Greek and Roman Art. (3). Architecture, sculpture, and painting from Aegean art to the fall of the Roman Empire

4131-6131. Early Christian and Byzantine Art. (3). Development of architecture, sculpture, and painting through early medieval period; emphasis on Early Christian and Byzantine Art

4134-6134. Romanesque and Gothic Art. (3). Development of architecture, sculpture, and painting from Carolingian (Proto-Romanesque) Period through Gothic Period

4141-6141. Art of the Early Renaissance in Italy. (3). Architecture, sculpture and painting of Italy. 1300-1510.

4142-6142. Northern Renaissance Art. (3). Fifteenth Century Art in Northern Europe, emphasis on panel painting, manuscript illumination and printmaking

4143-6143. Art of the High Renaissance in Italy. (3). Sixteenth Century Art in Italy; highlights works of Michelangelo, Raphael, Titian, and the Mannerists

4146-6146. Baroque Art. (3). Architecture, sculpture, and painting produced in Europe during Seventeenth Century.

4151-6151. Nineteenth Century Art. (3). Art movements of Nineteenth Century from Neo-Classicism to Impressionism.

4154-6154. Modern Art. (3). Major developments in European painting and sculpture from 1890's until World War II; includes Fauvism, Cubism, and Surrealism.

4156-6156. Art Since 1945. (3). Major art movements and contemporary schools of criticism from World War II to present. Major trends examined include Abstract Expressionism, Pop Art and Earth Art.

4158-6158. Modern Architecture. (3). Survey of 19th century styles, 20th century masters, and contemporary developments in architecture; includes historic preservation.

4162-6162. Spanish Colonial Art. (3). The arts in South America, Mexico, and United States during period of Spanish Rule. Survey of Baroque art in the Americas.

4163-6163. Pre-Columbian Art. (3). Ancient art of Mexico, Central America and South America from about 1000 B. C. to European contact.

4165-6165. Art of the American Indian. (3). Arts of North American Indians from pre-history to present

4167-6167. Art in America I. (3). American art: architecture, sculpture, painting, and minor arts within continental United States from prehistoric times to Civil War.

4168-6168. Art in America II. (3). Architecture, sculpture, painting and minor arts in continental United States from Civil War period to present

4181-6181. Primitive Art. (3). Art of primitive Negro of Africa, aboriginal peoples of Oceania, and American Indian.

4197-6197. Topics in Art History. (1-6). May be repeated when topic varies to a maximum of 9 hours.

4201-6201. Advanced Design — Plastics. (3). Two-dimensional and three-dimensional design in plastics employing basic methods of casting resins and thermoheating processes using sheet, rod, and tube plastics.

4202-6202. Advanced Design — Plastics. (3). Further development in creative plastics design through thermoheating process of vacuum forming, blow forming, and resin casting processes.

4205-6205. Advanced Design — Continuous Pattern Processes. (3). Emphasis on both theoretical and practical approaches to continuous pattern processes using various media and processes techniques. PREREQUISITES: ART 1201, 1204, 2201, 2202.

4206-6206. Advanced Design — Continuous Pattern Processes. (3). Continuation of ART 4205; advanced work in constructed pattern processes. PREREQUISITE: ART 4205.

4207-6207. Advanced Color. (3). In-depth study of contemporary color concepts for designers and practicing artists. Personal exploration of phenomena of color perception in relation to color organization according to individual student's professional goals.

4208-6208. Advanced Design — Special Problems. (3). Contemporary design issues within mid-south region with specific design fields to be offered by professional designers working in a broad scope of specializations and serving as guest/resident/or adjunct faculty on rotational basis, when feasible. PREREQUISITE: ART 3240 and/or permission of instructor

4221-6221. Graphic Design. (3). Advanced problems in fields of advertising and merchandising design. PREREQUISITE: ART 3222 or permission of instructor

4222-6222. Graphic Design. (3). Study and execution of graphics for television, incorporating animation and design for the video environment. PREREQUISITE: ART 4221 or permission of instructor.

4231-6231. Professional Practice: Graphic Arts. (3). Instruction by a graphic arts practitioner in one of these professional settings: design and concept, copy preparation, advertising graphics, or commercial photography.

4237-6237. Interior Design Studio. (3). (4231). Advanced interior design. Comprehensive studio assignments including space planning, construction, lighting and complete furnishings specifications with samples, concluding with class presentation by student designer. PREREQUISITES: ART 3234, 3235, 3236, and 3237 or permission of instructor.

4238-6238. Interior Design Studio. (3). (4232). Further advanced studio assignments in commercial and residential interior design, with class presentations. PREREQUISITES: ART 3238, 4237, 4239, or permission of instructor.

4239-6239. Interior Design Business Practices. (3). (4235). Study and application of principles, procedures and business practices of interior design. Contracts, letters of agreement, work orders, business forms and specification writing developed in conjunction with lectures and studio assignments. PREREQUISITE: ART 3234 or permission of instructor.

4240-6240. Interior Design Internship. (3). (4236). Approved on-the-job apprenticeship experience with cooperating employer in an interior design firm's studio, retail store or designer showroom handling products of interior furnishings industry. Student's training evaluated by employer and interior design faculty. PREREQUISITE: ART 4239 or permission of instructor.

4321-6321. Drawing and Painting. (3). Advanced drawing and painting methods, emphasis on transparent watercolor. PREREQUISITE: ART 2313 or permission of instructor.

4322-6322. Drawing and Painting. (3). Continuation of ART 4321, attention to various mixed media. PREREQUISITES: ART 2313 and 4321 or permission of instructor.

4331-6331. Painting. (3). Advanced problems in oil painting, presupposing that student has mastered basic techniques and is ready for a more experimental approach to subject. PREREQUISITES: ART 3331 and 3332 or permission of instructor.

4332-6332. Painting. (3). Continuation of ART 4331; emphasis on development of personal style. PREREQUISITES: ART 3331, 3332, and 4331, or permission of instructor.

4341-6341. Illustration. (3). Survey of many areas requiring services of illustrator and including preparation of book, magazine, advertising, and television illustrations.

4342-6342. Illustration. (3). Continuation of ART 4341; analysis of fine art techniques of drawing and painting as they apply to commercial illustration.

4351-6351. Advanced Printmaking I. (3). Specialization in one or two printmaking media with emphasis on development of personal imagery and technical skills. PREREQUISITES: ART 2351, 3351 or 3352, or permission of instructor.

4352-6352. Advanced Printmaking II. (3). Advanced work in one or two printmaking media with continued development of personal imagery and advanced technical skills. PREREQUISITES: ART 2351, 3351 or 3352, and 4351, or permission of instructor.

4380-6380. Museology. (3). (Same as ANTH 4380). History and development of museums; mandate and variety of institutions; significant research facilities; historical and contemporary collections, and educational roles of museums in contemporary society.

4381-6381. Art Curatorial Techniques. (3). Curatorial responsibilities and functions: receiving and shipping methods, registration, physical and environmental security, research, conservation, and study of art market and publications.

4382-6382. Museum Operation. (3). (Same as ANTH 4382). Basic aspects of museum organization, management, exhibit planning and execution, and maintenance of collections and records.

4421. Materials and Methods in Teaching Secondary School Art. (3). (Same as SCED 3321). Understanding adolescent art expression and preparing art teaching materials for secondary school art program. PREREQUISITES: ART 3421 and 3523, or permission of instructor.

4424-6424. Woven and Constructed Fiber Design I. (3). Creating fiber craft objects and wall hangings primarily through weaving with multiple harness looms; fiber spinning and dyeing.

4425-6425. Woven and Constructed Fiber Design II. (3). Advanced loom weaving techniques and other fiber processes such as macramé, stitchery and applique. PREREQUISITE: ART 4424 or permission of instructor.

4511-6511. Sculpture. (3). Advanced work in various sculptural media. PREREQUISITES: ART 2511, 3511, and 3512 or permission of instructor.

4512-6512. Sculpture. (3). Continuation of 4511; emphasis on personal expression. PREREQUISITE: ART 4511 or permission of instructor.

4621-6521. Ceramics. (3). Advanced studies in ceramic process and technique. Concentration on development of personal attitudes toward work.

4622-6522. Ceramics. (3). Technical competence and the production of ceramic objects reflective of genuinely personal involvement.

4631-6531. Jewelry. (3). Jewelry-making; emphasis on materials and equipment. Nature and possibilities of metals, stones and other materials in terms of good jewelry design. Basic projects in enameling, soldering, pickling, buffing, and other techniques.

4632-6532. Jewelry. (3). Second course in jewelry-making and metal-work. Study and practice in good design. Work in lost wax casting, champlevé, cloisonné, and combinations of materials.

4611. Senior Problems. (3). Original research in student's area of concentration, extent of the project to be approved by art faculty.

4621-6521. Workshop in Art. (3). Specific art problems as they apply to individual student, emphasis on basic art concepts and creative experience. PREREQUISITE: permission of instructor.

4622-6522. Workshop in Art. (3). Continuation of ART 4621, providing study of problems appropriate to need of individual student. PREREQUISITE: permission of instructor.

4630-6630. Topics in Studio Art. (1-3). May be repeated when topic varies to a maximum of 9 hours.

4635-6535. Topics in Art Education. (1-3). May be repeated when topic varies to a maximum of 9 hours.

4641-6641. Study and Travel in Art (3 or 5). Travel to important art areas of world and specialized study under direction of faculty member of Department of Art.

4701-6701. Color Photography. (3). Exploration of photographic perception in color. Survey of history and aesthetics of color photography. Techniques of color photography, emphasis on color printing. PREREQUISITE: ART 2702, junior standing, or permission of instructor.

4702-6702. Photographic Materials and Processes. (3). Advanced technical course exploring creative potential in various contemporary and historical photography materials, processes and techniques. Emphasis on aesthetic application of those materials and techniques. PREREQUISITE: ART 2702 or permission of instructor.

4711. Advanced Photography Seminar. (1-3). Supervised problems course. Emphasis on student's finding personal direction within own work, pursuing that direction, and discussing it in class critique. May be repeated to a maximum of 6 hours. PREREQUISITES: ART 3701 or permission of instructor.

4712. Photography Portfolio Seminar. (1-3). Student must make photographs which will be used to produce photography book or portfolio (bound by the student) which represents coherent, in-depth picture statement, and will contain written introduction. May be repeated, not to exceed 6 hours. PREREQUISITE: ART 4711 or permission of instructor.

4721-6721. History of Photography. (3). Visual and technical developments; critical and aesthetic consideration of the photographic image.

JOURNALISM

PROFESSOR JOHN De MOTT,
Chairman

Room 300, Meeman Journalism Building

K260 JOURNALISM (JOUR)

1700. Survey of Mass Communication. (3). (1011, 1012). Social background, scope, functions, and organization of modern communication media; attention to all major mass communication media. Philosophy and goals of modern journalism; its impact on governmental, social and economic systems. NOTE: Students who have received credit for JOUR 1011 OR 1012 may not receive credit for JOUR 1700.

2121. Elementary News Writing. (3). (2111). News story structure and factors that determine value of news, with consideration given to both theoretical and practical aspects of news gathering and reporting.

2123. Editing I. (3). (3112). Practices in headline writing, editing, and newspaper makeup and study of contemporary editing problems.

2200. The Magazine. (3). (3116). Historical backgrounds, contents, purposes, and readership of general magazines, business and industrial papers and specialized journals.

2300. Survey of Advertising. (3). Exploration of creative function of advertising; emphasis on role of media.

2520. Press Photography. (3). (3111). Taking pictures with news camera, developing films, making enlargements, cropping and scaling for publication. Students may bring their own cameras. Open to non-majors with permission of instructor. One lecture/four laboratory hours.

2710. Typography. (3). (2211). Study and effective use of type, composition, engraving, stereotyping, printing and graphic design in both black-and-white and color.

3123. News Feature Writing. (3). Fundamentals of non-fiction feature writing for newspapers, magazines, company publications and broadcast news presentations. Story ideas, personality profiles, humor articles and complex, news-related features developed.

3125. Editing II. (2). (3113). Emphasis on practical editing applications. Students are charged with production of *The Helmsman*. PREREQUISITE: JOUR 2123.

3206. Magazine Article Writing. (3). (3121, 3122). Introduction to free-lance writing techniques. Preparing queries and articles for submission. Generating and researching ideas appropriate for the magazine market. NOTE: Students who have received credit for JOUR 3121 OR 3122 may not receive credit for JOUR 3206.

3214. Magazine Editing and Production. (3). (3117). Editing and production problems of magazines; emphasis on business, industrial, and home periodicals; headline and title writing; pictorial copy layout, staff organization; and production processes. PREREQUISITE: JOUR 2200.

3322. Advertising Layout. (3). (3210). Basic techniques in laying out printed advertisement; introduction to use of advertising mat service in layout.

3324. Advertising Copy Writing. (3). (3221). Principles of advertising psychology in relation to proved techniques for writing effective copy, approximately half of course devoted to practice in writing copy and preparing rough layouts.

3336. Advertising Sales. (3). (3222). Practical experience in preparation and selling of completed advertisements; student

will service own clients throughout semester, using *The Helmsman* as a space medium.

3400. Introduction to Public Relations. (3). (4222). Development, scope, and modern role of public relations; emphasis on case studies, lectures, and experimentation with major public relations tools and practices.

3421. Print Media in Public Relations. (3). Planning and budgeting, selection and development of public relations tools. Writing news releases. Writing and production of printed materials. PREREQUISITES: JOUR 2121, 3400, and ART 2221.

3422. Electronic Media in Public Relations. (3). Planning and writing public relations copy for audio-visual presentations radio, television, satellite-based communications networks, videotex, teleconferencing, computer-based communications and other electronic delivery systems. PREREQUISITES: JOUR 3400 and 3625.

3525. Advanced Press Photography. (3). (4008). Skills of visual communication. Assignments designed for relevance to covering daily news. Emphasis on picture stories, including text and layout. PREREQUISITE: JOUR 2520 or permission of instructor.

3527. Photojournalism Editing. (3). (3011). Emphasis on picture use and management in daily press. Potential and limitations of photography as an editorial tool. Open to upper-level journalism students who do not have a concentration in photography.

3625. Radio and Television News Writing and Editing. (3). (3331). Processing of news for radio and television; attention to present-day style used by electronic media. PREREQUISITE: JOUR 2121.

3627. Radio and Television Reporting of Special Events. (3). (3333). Preparation and presentation of special programs such as news, sports, interviews, documentaries. PREREQUISITE: JOUR 3625.

3700. History of Journalism. (3). (4005). Origin and development of American journalism; students who enroll should have completed HIST 2601 and 2602 or equivalent.

3720. Reporting. (3). (2112). Gathering and writing news of the University community with assignments arranged on *The Helmsman*. Three lecture, one laboratory hour per week. PREREQUISITE: JOUR 2121.

3800. Journalism Seminar. (1). Weekly presentation by a media professional on a topic in his field of journalistic expertise. Students prepare for discussion sessions through assigned readings. May be repeated for a maximum of 2 hours credit. PREREQUISITE: junior standing.

4120. Reporting Public Issues. (3). (4245). Analyzing and writing news reports about government, courts, energy, economy, taxes, education, environment, medicine and science. Stresses relationship between current issues and public's need to be informed. Emphasis on topics vital to large urban society. PREREQUISITE: JOUR 3720.

4130. Writing Internship. (2). (4002, 4003). Work in practical assignments at local media under supervision of qualified practitioners. NOTE: Students who have received credit for JOUR 4002, 4003, 4330, or 4430 may not receive credit for JOUR 4130. PREREQUISITE: permission of instructor.

4327. Advertising Strategies. (3). (4100). Researching, planning, writing, scheduling, budgeting, and evaluating complete advertising campaign. Includes media selection, layouts, tapes, storyboards, and preparation of detailed budgets for product or service. PREREQUISITE: JOUR 3322, 3324.

4330. Advertising Internship. (2). (4000). Work under supervision of qualified practitioners in local advertising agency; advertising department of newspaper, television, or radio station; or company advertising department. NOTE: Students who have received credit for JOUR 4130 or 4430 may not receive credit for JOUR 4330. PREREQUISITES: JOUR 3322, 3324 and permission of instructor.

4423. Public Relations Case Problems. (3). Case studies and typical public relations problems. Planning and preparation of communications materials for various media; application of public relations techniques. PREREQUISITE: JOUR 3421, 3422.

4430. Public Relations Internship. (2). (4242). Work experience as intern with public relations department or organization, or on team project assigned by instructor. Experience includes analysis of public relations plan and evaluation of results. NOTE: Students who have received credit for JOUR 4130 or 4430 may not receive credit for JOUR 4430. PREREQUISITE: JOUR 4423 and permission of instructor.

4529. Electronic Reporting. (3). (3334). Gathering and writing of news for all electronic media (radio-TV-Cable). Emphasis on fundamentals of reporting and audio-video electronic newsgathering. PREREQUISITES: JOUR 3625, COMM 3821, 3801 OR COMM 3821, 3823, and 3824.

4700. Mass Communication Law. (3). (4001). Origin and development of legal principles affecting freedom of expression and provisions of laws of libel, slander, copyright, and other statutes limiting communication in fields of publishing and broadcasting.

4702. Current Issues in Journalism. (3). (3332). Advanced study of recent, critical problems faced by the mass media. Emphasis on interaction among media with look toward future communication technologies.

4704-6704. Theories of Communication. (3). (Same as COMM 4704). Comparison of theories offered to explain character or effects of mass communication media ranging from Stimulus-Response Theory to Agenda-Setting Theory.

4706. Newsroom Management. (3). (4030). Policy and regulatory aspects of news management; personnel and technical factors governing news production and programming; analysis of news operations.

4708. Journalism Professional Ethics. (3). Classical approaches to ethics presented with their application to the day-to-day considerations a journalist must face in working with employers, local publics and the larger society which depends on a free and responsible press.

4710-6710. Mass Media and New Technology. (3). Scope of developing technology in mass media including cable, satellites, video recorders, video disks, lasers, optical fiber, videotext, computers and other communication devices. Industry considerations and effect of new technology on society.

4726-6726. Journalism Research Methods. (3). (4175). Familiarization with content analysis, survey research, data analysis, and field studies as practiced by reporters, editors, and public relations decision makers. Modern research techniques and class project using computer analysis. PREREQUISITE: JOUR 2121 or permission of instructor.

4800-6800. Special Topics in Journalism. (3). Intensive study of a single critical issue or current topic. May be repeated for a maximum of six hours credit.

4830. Directed Studies in Journalism. (1-3). Independent study and research, or practicum, or project under supervision. May be repeated for a maximum of 3 hours credit. PREREQUISITE: permission of instructor.

MUSIC

PROFESSOR DAVID R. WILLIAMS, *Chairman*

Room 123B, Music Building

APPLICATION AND AUDITION PROCEDURES: Special application and audition procedures are required. See the description of the music programs in *Colleges and Degree Programs*.

PIANO PROFICIENCY: All undergraduate music students must complete a piano placement examination prior to enrolling in applied music courses in the Department of Music. All music majors must pass the piano proficiency examination before the beginning of the senior year. This may be done in either of two ways: (1) as part of the class work in MUSE 2108, Class Piano, or (2) by passing without credit the piano proficiency exam based on the student's area of major study, given once each semester. An official notice will be mailed to the student and appropriate officials upon completion of MUSE 2108 or the piano proficiency exam. After successful completion of the piano proficiency examination, music students whose major instrument is not piano may be accepted for major group or private piano instruction (Theory and Composition students may be assigned to group lessons or to private piano studios before passing the proficiency examination with the permission of their division heads and the permission of the Piano Division coordinator). Transfer students must take the proficiency examination during the first semester of residence or enroll in Class Piano at the appropriate level.

K307 MUSIC THEORY AND COMPOSITION (MUTC)

Placement in the Music Theory sequence for undergraduates will be determined through examination. NOTE: Courses in Composition and Electronic Music may be repeated for credit but not for the purpose of improving the grade originally earned.

1001. Basic Music Theory. (2). For students who plan to major in music but do not meet minimum standards for MUTC 1008. Not allowable as credit toward the satisfaction of requirements for the major or minor. Two laboratory hours per week.

1002. Aural Music Theory. (1). Sight-singing and ear-training techniques using material studied in MUTC 1001, keyboard harmony. Two laboratory hours per week. PREREQUISITE: MUTC 1001.

1008. Music Theory I. (3). (1004). Basic notation, scales, intervals, triads, key signatures; analysis and exploration of technical material and written exercises in historical areas of plainchant through late 16th century. COREQUISITE: MUTC 1010. PREREQUISITE: Theory placement exam.

1009. Music Theory II. (3). (1005). Four part structures, all seventh chords, chorale harmonization figured bass realization; analysis and written exercises from historical area of early 17th century through J. S. Bach. COREQUISITE: MUTC 1011. PREREQUISITE: MUTC 1008, 1010.

1010. Aural Theory I. (1). (1004). Beginning ear training, scales intervals, triads, simple melodic lines and simple two part examples; sight-singing of combination of tonal and modal materials. COREQUISITE: MUTC 1008. PREREQUISITE: Theory placement exam. (S/U only).

1011. Aural Theory II. (1). (1005). Ear training involving triads in sequence, two part examples, modulatory melodies; sight-singing of 17th and 18th century melodic examples. COREQUISITE: MUTC 1009. PREREQUISITE: MUTC 1010, 1008. (S/U only).

2008. Music Theory III. (3). (1006). Continuation of four part structure, part writing and figured bass; expanded harmonic materials from ninth chords through chordal mutation; formal and chordal analysis from Bach through mid-19th century. COREQUISITE: MUTC 2010. PREREQUISITE: MUTC 1009, 1011.

2010. Aural Theory III. (1). (1006). Ear training involving expanded harmonic materials, modulatory melodies, two part examples with modulation; sight-singing of 18th and 19th century melodic examples. COREQUISITE: MUTC 2008. PREREQUISITE: MUTC 1011, 1009. (S/U only).

2501. Composition. (2). Class instruction in free composition; emphasis on smaller forms. May be repeated for additional credit. PREREQUISITE: MUTC 1008. NOTE: Composition taught as applied music. Students receive the equivalent of one-half hour lesson per week. Fee for this instruction is \$30.00 per semester.

2502. Composition. (2). Works for piano, voice, chorus, and small ensembles; study of style and analysis of works from music literature. May be repeated for additional credit. PREREQUISITE: MUTC 2501 or permission of instructor. NOTE: Composition is taught as applied music. Students receive equivalent of one hour lesson per week. Fee for this instruction is \$60 per semester.

2511. Introductory Electronic Music. (2). Emphasis on basic techniques of electronic music composition through work in tape manipulation, synthesizer operation, musique concrete; history and aesthetics of electronic music. PREREQUISITE: MUTC 2008 or permission of instructor. FEE: \$60.

3008. Music Theory IV. (3). (3001). Continuation of late 19th century harmonic structures; introduction of popular music and its notational symbols; introduction and use of 20th century techniques analysis and written examples from 20th century. COREQUISITE: MUTC 3009. PREREQUISITE: MUTC 2008, 2010.

3009. Aural Theory IV. (1). (3001). Ear training involving expanded 19th century harmonic considerations, 20th century chromaticism and pandiatonicism, two part examples from both 19th and 20th centuries; sight-singing emphasizing melodies of 20th century. COREQUISITE: MUTC 3008. PREREQUISITE: MUTC 2010, 2008. (S/U only).

3010. Aural Theory V. (1). (3002). Aural exploration of basic forms, cadences and styles of music; detailed aural analysis of modulatory elements within a piece. PREREQUISITE: MUTC 3008, 3009.

3101. Orchestration. (2). (3002). Basic study of instruments of orchestra and band; terminology and techniques pertaining to that study; practical application by scoring for small and large instrumental combinations. PREREQUISITE: MUTC 3008, 3009, or permission of instructor.

3102. Advanced Musical Analysis. (3). (3003). Theoretical analysis of large-scale compositions from the Renaissance to the present. PREREQUISITE: MUTC 3008, 3009.

4101. Compositional Techniques of the Twentieth Century. (3). Writing course employing harmonic and contrapuntal techniques and devices from Debussy to present.

4201. Studies in Music Theory and Composition. (1-3). Directed individual or class instruction in selected areas of music theory and composition chosen in consultation with instructor. May be repeated for credit as necessary to fulfill specific concentration requirements.

- 001 INDIVIDUAL STUDIES (1-3)
- 002 SIXTEENTH CENTURY COUNTERPOINT (2)
- 003 EIGHTEENTH CENTURY COUNTERPOINT (2)
- 004 TWENTIETH CENTURY COUNTERPOINT (2)
- 005 PEDAGOGY OF THEORY (3)
- 006 ANALYTIC TECHNIQUES (3)
- 007 ADVANCED ORCHESTRATION (3)

4202-6202. Seminar: Music Theory and Analysis. (3). Advanced course in theory, counterpoint, and analysis of literature. Contrapuntal and harmonic techniques. Research; theoretical problems from pedagogical point of view, writing in strict and free styles. Recommended as review course for graduate students. PREREQUISITE: permission of instructor.

4203. Critical Studies in Music. (3). Directed research in music theory, history and literature; study in depth related to major concentration area, required of theory majors; term paper.

4501-6501. Composition. (2 or 4). Composition in varied forms for large and small ensembles and solo instruments; analysis of contemporary works and practical application of techniques. May be repeated for additional credit. PREREQUISITE: recommendation of upper division examining committee. NOTE: Composition taught as applied music. Students receive equivalent of one hour lesson per week. Fee for this instruction is \$60.00 per semester.

4502. Composition for Non-Composition Majors. (3). Class instruction in free composition for students not majoring in composition. Practical experience in idea generation, form, development, and instrumentation. PREREQUISITE: MUTC 3008. NOTE: Composition taught as applied music. Students receive equivalent of one half-hour lesson per week. Fee for this instruction is \$30 per semester.

4511. Intermediate Electronic Music. (2). Emphasis on basic techniques through work in tape manipulation, study of history and aesthetics of electronic music. The two hours credit earned from this course may be utilized as composition credit toward composition concentration. PREREQUISITE: for music majors only or with permission of instructor. FEE: \$60.00.

4512. Advanced Electronic Music. (2). Continuation of MUTC 4511. Emphasis on individual compositional projects. May be repeated for credit, but only two hours may be utilized as composition credit in composition concentration. FEE: \$60.

4599. Senior Composition Recital. (1).

K304 MUSIC HISTORY, LITERATURE, AND APPRECIATION (MUHL)

1101. Music Appreciation. (3). Introduction to music through study of its literature and history; significant compositions oriented to their proper social, cultural, economic and political settings in order to bring about most effective understanding and enjoyment of music. Attendance at some concerts sponsored by Music Department may be required. NOTE: May not be used to satisfy requirements for degrees in music or in music education.

3301. History of Music to 1700. (3). Development of significant musical styles; attention to individual contribution of major composers. PREREQUISITE: MUTC 2008 or permission of instructor.

3302. History of Music Since 1700. (3). Continuation of MUHL 3301. PREREQUISITE: MUTC 2008 or permission of instructor.

4001. Piano Repertory. (3). Survey of stringed keyboard repertory from Bach and his contemporaries to the present. Representative works analyzed in regard to historical, stylistic,

formal and aesthetic features. PREREQUISITE: junior standing in music or permission of instructor.

4004. Survey of Chamber Music for Piano. (2). Study of development of works for piano and one other instrument, piano trios, piano quartets and quintets; stylistic analysis of works from classic, romantic, impressionistic, early 20th century, and avant-garde repertory. PREREQUISITE: permission of instructor.

4005-6005. History and Literature of the Organ I. (2). Literature for the organ and its effect on and interaction with organ design. To 1700.

4006-6006. History and Literature of the Organ II. (2). 1700 to the present.

4251-6251. Collegium Musicum: Laboratory in Music History. (3). Use of lute, viols, recorders, other early musical instruments and voice in performance of early music; primary sources (facsimiles of early prints, MSS, and works on performance practice) will be used in preparation of performances. May be repeated for credit, but not for the purpose of improving the grade originally given.

4407-6407. The Opera and Music Drama. (3). Survey of opera before Richard Wagner; Wagner's music dramas and operas of his contemporaries; dramatic and musical significance of each phase of development of two forms. PREREQUISITE: MUHL 3301, 3302, or permission of instructor.

4408-6408. Style Periods in Music History. (3). Music and historical data from various periods of Western musical history. May be repeated for credit when topic varies.

- 001 MEDIEVAL MUSIC
- 002 RENAISSANCE MUSIC
- 003 BAROQUE MUSIC
- 004 CLASSIC MUSIC
- 005 ROMANTIC MUSIC
- 006 20TH CENTURY MUSIC

4500. String Repertory. (3). Histories, texts, methods, periodicals, orchestral studies, and solo and ensemble literature of the individual string instruments.

4601. Comparative Arts. (3). Cultural activities in their interrelation with each other and with corresponding historic and economic events. Open without prerequisite to non-music majors of junior and senior standing.

4800-6800. World Musical Styles. (3). Musical styles and role of music performance in preliterate and folk societies throughout world.

4801-6801. American Folk and Popular Music. (3). Folk and popular elements in American music. Role of mass media, especially phonograph record, in utilizing and changing folk music. Historical development and interrelationships of various musical styles ranging from 19th century minstrelsy to roots of rock and roll. Emphasis on southern Anglo-American and Afro-American folk and popular musical styles.

4802-6802. Topics in American Folk and Popular Music. (3). Characteristics and development of a particular form of American folk or popular music. Topics include the following

- 001 AFRO-AMERICAN FOLK MUSIC
- 002 BLUES
- 004 ANGLO-AMERICAN FOLK MUSIC
- 005 HISTORY OF COUNTRY AND WESTERN MUSIC
- 006 HISTORY OF ROCK AND ROLL MUSIC
- 007 HISTORY OF JAZZ
- 008 HISTORY OF ROCK/POP
- 009 MEMPHIS MUSIC
- 010 FOLK/POP MUSIC OF THE MID-SOUTH

4803. Studies in Music History. (1-3). Directed individual or class study in selected areas of music history chosen in consultation with instructor. May be repeated for credit with permission of department chairman. May not exceed 6 hours credit.

K316 SACRED MUSIC (MUSA)

4001-6001. Judeo-Christian Music. (3). History of church music from temple to 1000 A. D. Considerable emphasis on Hebrew music, its use as related in scripture and the form and use of service music in present day temples. Music for sabbath and festival services.

4101. Service Playing. (3). Practical keyboard work in performance of basic music used in liturgical and non-liturgical services. Includes keyboard harmony, modulation and simple improvisation. NOTE: Taught as applied music. Students receive equivalent of 2 half-hour lessons per week. Fee for this instruction is \$60.00 per semester.

4103. Basic Organ Improvisation. (2). Practical operational facility in improvised works in trio style, chorale or hymn-tune preludes in pattern styles, and embellished melodic lines with harmonic accompaniments. Emphasis on keyboard harmony and reading from figured basses. PREREQUISITE: permission of instructor.

4104-6104. Sacred Music in History and Practice I. (3). Survey of Jewish and Christian sacred music, exploring origins of styles, traditions, and current practices.

4105-6105. Sacred Music in History and Practice II. (3).

4801-6801. Studies in Sacred Music. (1-3). Directed individual or class study in selected areas of music chosen in consultation with instructor. May be repeated for credit with permission of department chairman. May not exceed 6 hours credit.

K318 APPLIED MUSIC (MUAP)

Applied music is offered at three levels. (1) major group instruction, (2) lower division, and (3) upper division. Lessons are given by members of the university faculty and by special instructors. Since the number of students who can be accepted is limited, it is advisable that the student audition as early as possible to be assured a place with the requested teacher. Practice facilities are provided without charge, but there are additional fees for the individual lessons.

All music majors must enroll in an ensemble each semester with the exception of the practice teaching semester. Non-music majors enrolled at Memphis State University as degree seeking students may enroll and be accepted for applied

instruction where staff time is available. If accepted for applied instruction, non-music majors must simultaneously enroll and actively participate in a large ensemble sponsored by the Department of Music. For additional details, see **LARGE MUSICAL ORGANIZATIONS** in this section of the *Catalog*.

All jazz and studio bass majors must simultaneously be enrolled in classical bass, MUAP 1541, for a total of six semester hours or until a level of proficiency equal to entrance into upper division is attained.

All jazz and studio guitar majors must take six semester hours of classical guitar which is the maximum allowable for credit towards the degree. If a student can meet the requirements in less time, and wishes to discontinue classical study, the student may do so with permission of the instructor and consultation with the jazz and studio faculty. In the event a student cannot meet the requirements after six semester hours of study, it is the student's responsibility to pursue classical guitar as an elective or until such time as requirements are met to the satisfaction of the guitar and jazz and studio faculty.

FEES: In addition to the regular student fees, all persons taking applied music will be assessed \$30.00 for each half-hour lesson. Students registering for one (1) semester hour credit will receive one half-hour lesson per week. All others will receive one hour lesson per week regardless of credit hours.

REGISTRATION: Students will register for lessons in the same manner and at the same time as they register for other courses, however, a student may not be assigned to a course number until he has auditioned. Auditions are held in the Music Building during the pre-college counseling, advising and registration periods before each semester. Auditions may be scheduled in the Music Office, Room 123, Music Building. Any inquiries concerning credits or course numbers should be directed to the chairman of the Department of Music.

CREDITS AND GRADES: A student may register for one or two hours credit per semester and will be assigned to individual lessons, a master class, or a combination of the two, commensurate with his level of performance. Additional credit may be earned at the lower division and upper division level. Students earning more than two credits per semester will be assigned additional practice and will be expected to perform at a higher level than those students registered for fewer credits. Grades are awarded on the same basis and have the same significance as in other subjects.

REPETITION OF COURSES: MUAP courses in individual lessons and major group instruction, small ensembles, and large ensembles may be repeated for credit but not for the purpose of improving the grade originally earned.

EXAMINATIONS: For an examination in applied music, each student will prepare and perform for members of the faculty of the Department of Music suitable musical selections and technical exercises of a grade of difficulty appropriate to his standing. Examinations are held in designated rooms on days set aside for this purpose near the end of each semester. Credit for the course will not be awarded to any student who fails to take the examination.

1000. Applied Music Workshop. (5). This course is required of all music majors for eight semesters and of all music education students for seven semesters. (S/U only).

4002-6002. Song Repertory I. (3). Survey of Italian repertory from 17th century to present. Comprehensive study of music and poetry of the German *lied*. The Cycle. Recital planning.

4003-6003. Song Repertory II. (3). Development of French *melodie*. The Nationalist schools. English song literature from Baroque to present. The American song with emphasis on the 20th century literature.

4799. Conducting Recital. (1).

4801. Studies in Applied Music. (1-3). Directed individual or class instruction in applied area not listed under MUAP. May

be repeated, not to exceed 6 semester hours credit. **PRE-REQUISITE:** permission of department chairman.

MAJOR GROUP INSTRUCTION: Any student of the University may audition for lessons at the major group level except in organ; organ students must have the ability to play the piano before beginning organ instruction. A student may not receive more than four hours credit in any one area of major group instruction. The fee for major group instruction will be the same as for one half-hour lesson per week. \$30.00 per semester.

LOWER DIVISION COURSES: Applied music courses in the lower division include the study normally carried out during the freshman and sophomore years. The piano or instrumental student at this level should have had several years of intensive study prior to University entrance so that he has a secure, reliable, and well-grounded technique on his instrument. Organ students may begin at this level provided that they play the piano well and have reasonable ability in sight-reading. Those who do not meet this requirement will register for Piano MUAP 1310. To be admitted to lower division study a student must first pass a qualifying examination.

Students who fall short of the requirements for admission to the lower-division courses will be advised to register for major group instruction until deficiencies are eliminated. Course numbers will be repeated for each semester of study.

UPPER DIVISION COURSES: Promotion to the upper division does not follow automatically after the completion of four semesters of courses in the lower division but is made only on the recommendation of the upper division examining committee; such a recommendation will be made only if the student's proficiency as a performer bears promise of future artistic and professional qualities as a soloist. It is at this level that the student normally begins preparation for a recital.

APPLIED MUSIC COURSES

Instrument	Major Group Instruction (2)	Lower Division (1-4 each)	Upper Division (1-6 each)	Junior Recital (1 each)	Senior Recital (1 each)
Trumpet	1110	1111	4111-6111	4118	4119
Horn	1120	1121	4121-6121	4128	4129
Trombone	1130	1131	4131-6131	4138	4139
Tuba	1140	1141	4141-6141	4148	4149
Piano	1310	1311	4311-6311	4318	4319
Harpsichord	—	1321	4321-6321	4328	4329
Organ	—	1331	4331-6331	4338	4339
Accompanying	—	—	—	4348	4349
Percussion	1410	1411	4411-6411	4418	4419
Violin	1510	1511	4511-6511	4518	4519
Viola	1520	1521	4521-6521	4528	4529
Cello	1530	1531	4531-6531	4538	4539
Bass	1540	1541	4541-6541	4548	4549
Guitar	1550	1551	4551-	4558	4559
Harp	1560	1561	4561-6561	4568	4569
Viola da Gamba	1570	1571	4571-6571	4578	4579
Voice	1610	1611	4611-6611	4618	4619
Flute	1710	1711	4711-6711	4718	4719
Oboe	1720	1721	4721-6721	4728	4729
Clarinet	1730	1731	4731-6731	4738	4739
Saxophone	1740	1741	4741-6741	4748	4749
Bassoon	1750	1751	4751-6751	4758	4759
Recorder	1760	1761	4761-6761	—	—
Jazz Trumpet	—	1112	4112	—	—
Jazz Trombone	—	1132	4132	—	—
Jazz Piano	—	1312	4312	—	—
Jazz Percussion	—	1412	4412	—	—
Jazz Bass	—	1542	4542	—	—
Jazz Guitar	—	1552	4552	—	—
Jazz Voice	—	1612	4612	—	—
Jazz Saxophone	—	1742	4742	—	—

JUNIOR AND SENIOR RECITALS: Most degree plans include a junior and/or a senior recital. To register for recital credit, a student must be enrolled in upper division applied music. All required recitals must be approved by the faculty. This is normally accomplished no later than two weeks prior to the scheduled date at which time the entire program is performed for a faculty committee. Only upon successful completion of this hearing may a student confirm the scheduled date and make arrangements for the printing of the program.

Bachelor of Music majors with concentration in chamber music must accompany two full recitals or the equivalent.

PREREQUISITE: Participation in jury examination for woodwinds, brasses, and strings. Student should register for the semester he intends to complete requirement.

For details regarding recommended and/or required recital literature see the Memphis State University Music Department Handbook.

SMALL ENSEMBLES AND CHAMBER MUSIC: Advanced students are encouraged (and for certain degree plans are required) to participate in the following groups. Selection for membership is based on audition, courses may be repeated with the approval of the student's advisor. Three one-hour meetings per week.

3101. Brass Ensemble. (1). Practical applications of brass performance techniques for a small chamber ensemble, one performer to a part; survey of brass chamber music. **PREREQUISITE:** permission of instructor.

3103. Jazz Combo. (1). Practical application of basic jazz improvisatory skills; combo experiences in all jazz styles: traditional, bop, contemporary. Audition required.

3301. Chamber Music for Pianists. (1). Applied work in piano ensembles, chamber music, and accompanying for woodwinds, brasses, strings, and vocalists.

3401. Percussion Ensemble. (1). Study and performance of selected traditional, contemporary, avant-garde and pops percussion literature. Open to students in percussion concentration and others through audition.

3402. Contemporary Chamber Players. (1). Ensemble of mixed and variable instrumentation. Performance of repertoire written since 1900 and little known works of other periods. Primary goal of ensemble: to provide experiences in solving unique performance problems of contemporary music. **PREREQUISITE:** permission of instructor.

3403. Orff Ensemble. (1). Study and performance of literature written for Orff instruments, including barred percussion, unpitched percussion, and recorder.

3501. String Ensemble. (1). Study and performance of string chamber music repertoire. Coaching sessions weekly with a member of music faculty. Open to music majors and non-majors through audition.

3601. Camera Singers. (1). Small Choral Ensemble. Chamber repertoire from Renaissance to present. Open to music majors and non-music majors through audition.

3602. Opera Workshop. (1-6).

3603. Opera Soloists. (1). Preparation and performance of role in major production of University Opera Theater. Audition required.

3604. Opere Production Laboratory. (1-6).

3701. Woodwind Ensemble. (1). Study and performance of original and transcribed works for varied combinations of woodwind instruments. Audition required.

LARGE MUSICAL ORGANIZATIONS

A minimum of eight semesters of large ensemble is required of music majors. (Exceptions to this policy are pianists with concentrations in Performance, Pedagogy, or Chamber Music; guitarists, who are required to have a minimum of 6 semesters of large ensemble; Commercial Music majors in Performance, who are required to have 8 semesters of the appropriate level jazz ensemble; and Commercial Music majors in Composition/Arranging, who are required to have 4 semesters of the appropriate level jazz ensemble, and music education majors, who are required to have 7 semesters of large ensemble.) Generally, wind and percussion performers are to participate in an instrumental ensemble, string performers are to participate in orchestra, and vocal, keyboard, and guitar performers are to participate in a choral organization unless assigned to a large instrumental ensemble. Transfer students lacking sufficient large ensemble credits may partially fulfill their large ensemble requirement by simultaneously enrolling in a small ensemble with a maximum of 2 credit hours of small ensemble applicable to the total large ensemble requirement. Ensemble assignments are based on audition and may be repeated. Any exception to this general ensemble assignment policy will be made after a review of petitions by the department chairman, the appropriate ensemble director, and the applied studio teacher.

2001. University Concert Band. (1).

001 UNIVERSITY CONCERT BAND Performance of traditional and contemporary wind compositions. Participants chosen from this ensemble for basketball pep-bands. Open to music majors and non-music majors.

002 VARSITY BAND Concert performance of traditional and contemporary wind compositions. Participants are chosen from this ensemble for basketball pep-bands and usually have participated in Fall marching band. Open to music majors and non-music majors.

2002. Marching Band. (2). Selected ensemble which performs at all home football games and occasional out-of-town games in each season. Rehearsal approximately ten hours weekly. Open to music majors and non-music majors.

2003. University Glee Club. (1). Study and performance of choral works from different stylistic periods. Development of singing voice, rhythmic and sight-singing skills. Open to music and non-music majors.

2004. University Gospel Choir. (1). Ensemble open to all students. Music includes contemporary gospel, spirituals, and gospel hymns. Serves as outlet for students interested in developing musical and personal capacities. Open to music majors as elective. Two class meetings per week.

3004. University Wind Ensemble. (1). Select ensemble of instrumentalists. Study and performance of outstanding repertoire for wind ensembles. Open to music majors and non-music majors through audition.

3006. University Orchestra. (1). Study and performance of major orchestral literature. Additional opportunities for opera, chamber-orchestral and chamber ensemble performance. Audition required.

3006. University Singers. (1).

001 UNIVERSITY CHORALE Study and performance of choral works from broad spectrum of choral literature: sacred, secular, accompanied and a cappella. Open to music majors and non-music majors through audition.

002 UNIVERSITY CONCERT CHOIR

3007. Opera Chorus. (1). Choral ensemble for opera productions with exploration of related stage techniques. Extra rehearsals at discretion of conductor. Audition required.

001 OPERA CHORUS MSU

002 OPERA CHORUS OPERA MEMPHIS

3008. Oratorio Chorus. (1). Study and performance of major works primarily oratorio in nature. Open to music majors, non-music majors and the off-campus community. Audition required.

3010. University Jazz Ensemble. (1). (3102). Study and performance of varied jazz styles, including repertoire from standard big band literature as well as studio ensembles. Participation in a jazz reading section may be required. Open to music majors and non-majors through audition. This course will meet large ensemble requirements for Commercial Music majors only.

3011. Recording Studio Lab Ensemble. (3). To perform and record works written by students in Commercial Music program.

001 RECORDING ORCHESTRA FOR INSTRUMENTAL PERFORMANCE

002 RECORDING ENSEMBLE FOR STUDIO SINGERS

This course will meet large ensemble requirements for Commercial Music majors only.

K313 MUSIC EDUCATION (MUSE)

FIELDS OF ENDORSEMENT FOR TEACHING: For students in the School Music Concentration of the Bachelor of Music in Music degree, endorsement may be obtained in Instrumental Music and in Vocal Music. Normally, a student can expect to be recommended in only one of these areas. Vocal Music applicants should be able to play piano accompaniments of moderate difficulty, should possess an adequate solo voice for school music purposes, and should schedule a variety of large choral ensembles. Instrumental Music applicants should study one instrument of major emphasis and participate in large instrumental ensembles. Students in either area may satisfactorily meet piano and voice requirements with completion of MUSE 2108 and MUSE 1113 and their prerequisites. A graduation recital is required in both areas.

1100. Class Piano for Non-Music Majors. (2). Beginning instruction in piano for non-music majors. Development of basic reading and performance skills. *Two laboratory hours and minimum of five hours preparation per week.*

1101. Class Instruction in Brass Instruments. (2). Basic performance skills and teaching techniques on trumpet, trombone, French horn, baritone horn and tuba for those who intend to teach instrumental music in schools.

1103. Class Instruction in Percussion Methods. (2). Basic performance skills and teaching techniques on snare drum, timpani, and keyboard percussion instruments for those who intend to teach instrumental music in schools. *Two laboratory hours per week.*

1104. Class Instruction in Woodwind Instruments. (2). Basic performance skills and teaching techniques on clarinet, flute, saxophone, oboe, and bassoon for those who intend to teach instrumental music in schools. *Two laboratory hours per week.*

1106. Class Instruction in Piano. (2). Basic technique, with emphasis on sight-reading. **PREREQUISITE:** MUTC 1001 or permission of instructor.

1106. Class Instruction in Piano. (2). Playing of songs used in school music teaching; community songs, and hymns. **PREREQUISITE:** MUSE 1105.

1109. Class Instruction in Stringed Instruments. (1). Basic performance skills and teaching techniques on violin, viola, cello and bass for those who intend to teach instrumental music in schools. *Two laboratory hours per week.*

1110. Class Instruction in Stringed Instruments. (1). Continuation of 1109. *Two laboratory hours per week.*

1111. Class Instruction in Guitar. (2). Functional accompanying skills as commonly used in folk and popular music. Basic and intermediate performance technique appropriate to the student's ability. May be repeated once for additional credit.

1112. Class Instruction in Voice. (1). Fundamentals of vocal production useful for all music teachers. *Two laboratory hours per week.*

1113. Class Instruction in Voice. (1). Continuation of 1112 with more emphasis on solo singing of easy songs. *Two laboratory hours per week.*

1116. Classroom Instruments: Guitar and Recorder. (2). Development of basic performance and teaching skills in guitar and recorder. Analysis of teaching materials and repertoire applicable for elementary and secondary education. Integration of guitar and recorder into classroom music and choral music ensembles. **PREREQUISITE:** MUTC 1009. *Open only to music majors or by special permission of instructor.*

2107. Class Instruction in Piano. (2). (1107) Simpler Bach chorales, more difficult songs, and accompaniments, appropriate to the student's major field; memorization optional. **PREREQUISITE:** MUSE 1106.

2108. Class Instruction in Piano. (2). (1108) Selected easier studies and compositions by Czerny, Concone, Beethoven, Chopin, Schumann, Bartok, and others. Final examination includes materials to satisfy core requirements of the piano proficiency exam, copies of which are available in music office. **PREREQUISITE:** MUSE 2107.

3001. Classroom Music Methods. (3). Required of all elementary education majors. Goals, materials, and methods of music appropriate for the elementary school child; music reading and playing of classroom instruments; creative movement; activities for music appreciation.

3700. Basic Conducting. (2). Development of conducting skills. Basic baton principles, rhythmic analysis, expressive techniques, phrasing, and multi-metered problems. Class meetings require performing as instrumentalist or vocalist as well as conductor. *Three class hours per week.* **PREREQUISITE:** Completion of MUTC 3008.

3702. Score Reading. (3). Realization of open score at the keyboard; vocal scores, small orchestra and large orchestra scores; clefs, transpositions, etc.; employing literature from various periods of music history.

4001-6001. Orff-Schulwerk Workshop for Classroom Teachers I. (3). Broad, practical introduction to use of Orff-Schulwerk approach to elementary music teaching. Development of performance leadership skills emphasized. Not open to music majors.

4002-6002. Orff-Schulwerk for Classroom Teachers II. (3). Emphasis on teaching process, children's folk materials, rhythmic and melodic training, development of lesson plans, and Orff instruments. **PREREQUISITE:** MUSE 4001.

4201-6201. Special Problems in the Teaching of Music. (1-3). Class or individual study of problems and opportunities faced by person who teaches music in schools, for classroom teachers, music teachers, supervisors, principals, and administrators. May be repeated, but *not* for the purpose of changing a previous grade, for maximum of 6 semester hours credit.

4202. Materials and Methods of Music, Grades K-6. (3). Aims and principles of music and of traditional and contemporary methods of teaching in elementary schools. Creative approach to rhythm, listening, instrumental and singing activities. Contemporary systems of music teaching for elementary grades surveyed.

4203. Materials and Methods of Classroom Music. (3). (Same as SCED 3322). Philosophy, methods, and materials for teaching non-performance music classes in secondary school, grades 7-12. Includes demonstration, observations, and simulation of classroom teaching at this level.

4204. Instrumental Music in Elementary and Secondary Education. (2). Designed to prepare the school instrumental teacher to teach basic music concepts to beginners in mixed instrumental group settings. Instruction methodologies and materials, simple instructional arranging, instrument assignment, and instrument maintenance stressed. Lab experience. **PREREQUISITE:** junior standing in music.

4205-6205. Marching Band Techniques. (2). Organizing and conducting the marching band; gridiron charting and marching procedures with a study of precision drill, formations and pageantry. **PREREQUISITE:** permission of the instructor.

4206-6206. Music for Exceptional Children. (3). (Same as EDUC 3401) Types of exceptional children and implications for providing realistic musical activities in the classroom. Emphasis on use of music as a tool in reaching non-musical goals such as language development, social adjustments, motor coordination, aural and visual perception (team taught with Special Education).

4207. Choral Methods and Materials. (2). Selected materials and methods of practical concern to the vocal-choral music specialist. Consideration of music series, scheduling techniques, voice class development, choral publishers, units of study. **PREREQUISITE:** junior standing in music.

4208-6208. Band Literature. (3). History and evolution of wind instruments and wind instrument playing and the history and development of the wind band and its literature, with general background material on the specific composers involved.

4209. Piano Tuning and Repair. (2). Concentrated study of the basic techniques involved in piano tuning and adjustment. Some basic tools are required.

4210. Instrument Repair. (2). Study of construction and maintenance of all common musical instruments; frequently encountered repair problems which must be handled immediately by teacher. Some basic tools required. May be repeated for credit when topic varies.

001 STRINGED INSTRUMENTS

002 BRASS INSTRUMENTS

003 WOODWIND INSTRUMENTS

4301-6301. Choral Arranging. (3). Practical experience in making arrangements for choral ensembles and organizations. Study of vocal needs involved and techniques of meeting them, including class performance and evaluation of assigned projects.

4401. Music Education: Philosophical Foundations. (3). Historical, philosophical, psychological, social, and aesthetic foundations of the total education programs, grades K through 12. Administrative procedures and problems. The music educator's role in the community. Evaluative techniques.

4501. Basic Piano Pedagogy. (3). Emphasis on elementary piano methods including Pace, Suzuki, and class techniques. **PREREQUISITE:** permission of instructor.

4503. Advanced Piano Pedagogy. (3). Approaches to the teaching of piano technique, repertoire, and musicianship. For upper division keyboard students. **PREREQUISITE:** upper division level in keyboard.

4505-6505. Principles of Accompanying. (3). Performance class involving practical study of instrumental and vocal standard repertory and the problems of ensemble playing. Facility in sight-reading and ability to assimilate music rapidly. Score-reading, transposition, and figured bass realization introduced as skills necessary to well rounded musicianship. **PREREQUISITE:** permission of instructor.

4506-6506. Introduction to Suzuki Talent Education for Strings. (3). Required of students who plan to serve as apprentice string teachers in the MSU Suzuki Talent Education program. Basic instruction in the Suzuki philosophy; participation with parents and children in Suzuki string classes.

4507. Organ Pedagogy. (2). Repertory materials suitable for fundamental teaching as well as methodology in techniques, analysis and registration concepts. **PREREQUISITE:** permission of instructor.

4608-6508. Principles of Suzuki Piano. (3). Suzuki philosophy applied to development of the child's abilities and the role of the teacher and parent. Students will analyze the technical and musical instruction of the beginning piano student.

4609-6509. (3). Literature and technique taught in the Suzuki Violin School; fundamental technique, development of posture, tone and listening ability in beginning students; analysis of pedagogical material. Required of students who plan to serve as apprentice teachers in the MSU Suzuki String Program. **PREREQUISITE:** MUSE 4506.

4510-6510. Advanced Suzuki String Pedagogy. (3). Literature and technique taught in Suzuki Violin School; emphasis on development of advanced student; laboratory experience in MSU Suzuki String Program. Required of students planning to be apprentice teachers in MSU Suzuki String Program. **PREREQUISITE:** MUSE 4509.

4511-6511. Class Piano Pedagogy. (3). Group instruction techniques in the teaching of beginning, intermediate, and early advanced piano. Emphasizes observation and practical application. For the piano major and/or prospective piano teacher. **PREREQUISITE:** Upper division level in keyboard or permission of instructor.

4700. Instrumental Conducting. (2). (3701). Various problems encountered in preparation and conducting of instrumental scores; individual practice with the opportunity for each student to conduct instrumental groups. *Three class hours per week.* **PREREQUISITE:** MUSE 3700.

4701. Choral Conducting. (2). Various problems encountered in preparing and conducting traditional and contemporary vocal scores; rehearsal techniques; individual practice with laboratory groups. *Three class hours per week.* **PREREQUISITE:** MUSE 3700.

4801-6801. Teaching Music Comprehensively. (3). Methods course designed to bring music theory, history, literature, performance, composition, and analysis to bear on the teaching of music at any level — elementary, junior high, high school, college, and private studio.

4802-6802. Level I Orff-Schulwerk. (1-3). Basic Orff-Schulwerk techniques including body movement, soprano recorder, percussion, vocal performance, improvisation and arranging. **PREREQUISITE:** junior standing in music education or equivalent experience.

K320 COMMERCIAL MUSIC (CMUS)

1116. Class Instruction in Piano: Jazz/Pop/Commercial. (2). Class instruction in jazz, pop, and commercial music piano styles: basic harmonic patterns, chord symbol realization, voicing, basic rhythmic patterns. **PREREQUISITE:** MUSE 1105 or equivalency exam.

1811. Electronics Technology I. (3). (Same as TECH 1811). Introduction to fundamental electrical and electronic theory and devices, circuit and network theorems, with laboratory emphasis on basic electrical measurements and the proper use of instruments. **PREREQUISITE:** MATH 1213.

2101. Music Theory: Jazz/Pop/Commercial I. (3). (MUTC 2101). Theory of jazz, pop, and commercial music styles. Basic harmonic structures, chord symbol realization, melodic structures, notation, articulation, rhythmic patterns; analysis of written and recorded jazz, pop, and commercial music; transcription of recorded materials. *Three lecture, one lab hours per week.* **PREREQUISITE:** MUTC, 1009.

2102. Music Theory: Jazz/Pop/Commercial II. (3). Altered scales and modes, altered and extended chords, chromatic progressions, mediant relationships, poly-harmony and pan-chromaticism. *Three lecture, one lab hours per week.* **PREREQUISITE:** CMUS 2101.

2103. Commercial Music Theory Applications Lab. (2). Ear-training involving scales, modes, chord qualities, including four-voice sonorities, simple pop melody and harmony, simple chromatic melody and harmony, various types of special-effect intonation, recognition of timbre, harmonic practices of popular music, chord symbol shorthand, lead sheet realization, score-reading.

2601. Composition/Arranging: Jazz/Commercial I. (2). Jazz and commercial music composition and arranging with emphasis on small instrumental and vocal works, basic style and form. May be repeated for additional credit. **PREREQUISITE:** MUTC 2501 or permission of instructor. **NOTE:** Composition is taught as applied music. Students receive the equivalent of one half-hour lesson per week. Fee for this instruction is \$30.00 per semester.

2602. Composition/Arranging: Jazz/Commercial II. (2). Jazz and commercial music composition and arranging with emphasis on stage and jazz band arranging techniques. Introduction to line writing. May be repeated for additional credit. **PREREQUISITE:** CMUS 2501 or permission of instructor. **NOTE:** Composition is taught as applied music. Students receive the equivalent of one half-hour lesson per week. Fee for this instruction is \$30.00 per semester.

3100. Promotion and Management of Artists. (3). Problems involved in management and promotion of recording artists. Attention to management, recording procedures, booking, and personal appearance contracts; concert promotions and personal appearances as they relate to development of artist. A portfolio will be completed.

3101. Record Promotion and Sales. (3). Current practices in promotion and sale of recordings. Emphasis on radio station music formats and other methods of exposing recordings to the public. Sales portion examines wholesale, one-step, rack, and retail store sale of recordings.

3102. Anatomy of Popular Song. (3). Analysis of current popular music; techniques of text setting; choice of text and musical styles; development of hook lines. **PREREQUISITE:** CMUS 2101 or permission of instructor.

3103. Trends in Contemporary Music Styles and Production. (3). Various styles of current popular musical groups and artists and their influences from earlier eras; discussion of prominent "behind-the-scenes" personalities—songwriters, producers, and engineers; analysis of musical styles and devices for purposes of developing ability to recognize and create songs with commercial potential.

3501. Composition/Arranging: Jazz/Commercial III. (2). Individual instruction in jazz and commercial music composition and arranging for mixed ensembles and studio groups in various jazz and studio styles, standard and extended forms. May be repeated for additional credit. **PREREQUISITE:** CMUS 2502 or permission of the instructor. **NOTE:** Composition is taught as applied music. Students receive the equivalent of one hour lesson per week. Fee for this instruction is \$60.00 per semester.

3542. Production Laboratory. (1-3). (Same as THEA 3542). Preparation for and participation in departmental theatre productions. Individualized work in form of supervised laboratory situations. Running crews for season productions selected from participating sections. May be repeated for credit.

001 PUBLICITY (1)

002 COSTUMES (1)

003 LIGHTS (1)

004 SOUND

005 SCENERY (1)

006 PROPS (1)

007 MAKE-UP (1)

008 HOUSE MANAGEMENT (1)

009 SPECIAL EFFECTS. (2). Instruction in how to safely create stage fires, explosions, smoke, rain, snow, thunder, lightning, supernatural illusions, etc. Offered alternate years. **PREREQUISITE:** permission of instructor.

010 SOUND SYSTEMS AND DESIGN. (3). Classes and lab work. Basic electronics and system hookups. Actual equipment use and aesthetics. Offered alternate years. **PREREQUISITE:** permission of instructor.

3800. Recording Studio Procedures. (4). Fundamental concepts of audio recording; development of an understanding of studio equipment and techniques, and the application of musical values in commercial production.

3801. Studio Synthesizers. (3). Study of each module of synthesizer system; interfacing of modules and use of instrument for signal processing and composition; correlation of audible presentation of a tone with visible wave-shape display. **PREREQUISITES:** TECH or CMUS 1811, CMUS 3800.

3825. Materials and Techniques of Improvisation I. (3). Development of improvisation skills on solo instruments or voice; basic chord patterns, scales, arpeggios; performance with rhythm section. **PREREQUISITE:** CMUS 2101 or permission of instructor.

001 INSTRUMENTAL

002 VOICE

3826. Materials and Techniques of Improvisation II. (3). Analysis of melodic structures; motivic fragmentation and sequencing; extended harmonic structures, articulatory variation; performance in small combo settings. **PREREQUISITE:** CMUS 3825 or permission of instructor.

001 INSTRUMENTAL

002 VOICE

3827. Materials and Techniques of Improvisation III. (3). Analysis and performance of music in standard styles, including bebop, Latin, third stream, soft rock, hard rock, and commercial; performance with combos and large jazz ensembles. **PREREQUISITE:** CMUS 3826 or permission of instructor.

001 INSTRUMENTAL

002 VOICE

3828. Aesthetics and Analysis of Jazz and Commercial Music Styles. (2). Fundamentals of form and style analysis; study of the artistic and commercial intentions and appropriateness of music from early popular styles to the present. **PREREQUISITE:** CMUS 2102 or permission of instructor.

4102-6102. Composer's Workshop: Jazz/Commercial. (3). (MUTC 4102). Composition in musical styles for various sizes of instrumental and vocal groups; writing for commercials, arranging; recording studio techniques. **PREREQUISITE:** CMUS 2502.

4103-6103. Jazz and Studio Ensemble Techniques. (3). (MUTC 4103) Jazz and studio performance styles, emphasizing arranging, ensemble technique, articulation, phrasing, recording studio techniques, and conducting.

001 INSTRUMENTAL PERFORMANCE

002 VOCAL PERFORMANCE

4201. Studies in Commercial Music. (1-3). Class or individual study of special problems in Commercial Music. May be repeated if course content differs.

4601. Composition/Arranging: Jazz/Commercial IV. (3). Individual instruction in jazz and commercial music composition and arranging with emphasis on advanced line writing, fusion and contemporary mainstream styles, writing for the full studio orchestra. May be repeated for additional credit. **PREREQUISITE:** CMUS 3501 or permission of instructor. **NOTE:** Composition is taught as applied music. Students receive the equivalent of one hour lesson per week. Fee for this instruction is \$60.00 per semester.

4502-6502. Introduction to Film Scoring and Editing. (3). Basic problems of writing music for film; commercials, shorts, and full length productions; selection of appropriate styles; introduction to editing room equipment; assignments for 16mm and 35mm film; writing from a cue sheet. **PREREQUISITE:** CMUS 2502 or permission of instructor.

4603-6503. Music Copying and Preparation. (2). Preparation of music for performance, recording, and publication; introduction to materials and calligraphic instruments; preparation of scores and parts of all types; use of transparencies and Ozalid process. **Prerequisite:** basic calligraphic skills exam, permission of instructor.

4504. Entertainment Complex Management. (3). Fundamentals for managers of concert hall, theme parks, stadiums, nightclubs, and other venue. Topics include: talent selection and negotiation, union considerations, publicity, security, cash management and complex budgets, selection of program material and presentation.

4602-6602. Introduction to Commercial Music. (3). (MUHL 4602) Music industry including copyright, royalties, (production, labor relations, promotion, advertising, and distribution. **PREREQUISITE:** permission of instructor.

4603-6603. Topics in Commercial Music. (3). (MUHL 4603). Study of commercial music with lecturers and distinguished guests from the industry. Individual projects required. **PREREQUISITE:** CMUS 4602 and permission of instructor.

4800. Basic Recording. (4). Audio engineering on modern multi-channel recording equipment using commercial production techniques. Emphasis on basic skills of microphone selection and placement, console operation, editing, mixing, and the engineer's artistic involvement in the project. **PREREQUISITES:** CMUS 1811, 3800, and permission of instructor.

4801. Problems in Commercial Music. (1-3). Independent study in subjects relevant to Commercial Music. May be repeated to maximum of nine hours, but not for purpose of changing grade originally given. **PREREQUISITE:** CMUS 4800 and permission of instructor.

4802. Advanced Recording. (4). Advanced production laboratory in producing contemporary commercial recordings. Emphasis on signal processing, automation, advanced recording, editing, and mixing techniques. Student will apply knowledge of the creative, business, and technical aspects of the recording process to studio production assignments. **PREREQUISITE:** CMUS 4800 and permission of instructor.

4803. Advanced Studio Production and Technologies. (3). Comprehensive examination and application of emerging technologies in audio recording including audio/video production, digital recording, computer-assisted composition, and consumer equipment. **PREREQUISITES:** CMUS 4302 and permission of instructor.

4804. Recording Studio Administration. (3). Financial and managerial aspects of operating a recording studio; scheduling, expansion, rate schedules and billing, hiring, securing venture capital, risk management, and providing related services. **PREREQUISITE:** CMUS 4802 and permission of instructor.

4805. Disc Mastering. (3). Principles, mechanics and techniques of tape-to-disc transfer. **PREREQUISITE:** CMUS 4802 and permission of instructor.

4831. Radio and Television Sales and Advertising. (3). (Same as COMM 4831). Relation of radio and television advertising to station, network, and station representative; role of sponsors, agencies, and allied groups. **PREREQUISITE:** CMUS 3823.

4897. Project in Commercial Music. (3-4). Final project in commercial music performance and composition; detailed proposal developed by student and main advisor.

001 PERFORMANCE PROJECT. (3). Project must include live and recorded performances demonstrating the student's mastery of various styles of jazz, popular, and commercial music performance.

002 COMPOSITION PROJECT. (4). Project must include music composed by the student in various styles of jazz, popular, and commercial music; live performance; music for part of an album; film score with film.

4898. Seminar in Commercial Music. (3-12). Independent project resulting in sufficient material to constitute one long-playing album or an extensive promotional campaign. Required of students not placed in internship. May be repeated for up to 12 hours credit. A total of 12 hours in either CMUS 4898 or 4899, or in a combination of the two, is required for the degree. **PREREQUISITE:** permission of instructor.

4899. Internship. (4). One semester of field work experience in selected areas of the music industry. **PREREQUISITE:** placement interview and permission of instructor.

THEATRE AND COMMUNICATION ARTS

PROFESSOR MICHAEL M. OSBORN, *Chairman*

Room 143, Theatre and Communication Arts Building

The Department of Theatre and Communication Arts offers concentrations in general speech and theatre, dance, broadcasting, communication, film and videotape production, and theatre; requirements for these and in the B.F.A. degree, Theatre, Design and Technical Production, and Dance are found in *College and Degree Programs*.

NOTE: Students may take theatre and communication arts laboratory courses (vis. THEA 3541, 3542) as often as advisor will allow. None of these courses may be repeated for the purpose of improving the grade originally given.

K491 THEATRE (THEA)

Professor James Keith Kennedy, Director

1212. Voice and Articulation for the Performer. (4). Especially for the actor, concentrates on voice-body mechanism as it responds to communicative image. **NOTE:** Students who have received credit for SPCH 1211 or COMM 1211 may not receive credit for THEA 1212.

1411. Basic Oral Interpretation. (3). Introduction to interpretation of literature in performance. To develop and heighten performer's responsiveness to his literary text.

1551. Introduction to Theatre. (3). Consideration of all dramatic elements of theatre from viewpoint of audience. Discussions of theory and practice focus on plays attended by class during semester. (See THEA 3541-008).

1561. Introduction to Design. (3). Historical and conceptual survey of basic elements of production—scenery, costumes, lighting, sound—and their relation to theatrical production process.

2501. Stage Movement. (3). Introduction to movement as basic element of actor's craft. Focus on recognition, development, and understanding of natural physical actions and rhythms and their application to stage.

2502. Theatre Dance. (3). Introduction to elements of movement patterns and rhythms for stage. PREREQUISITE: THEA 2501.

2511. Theatre Crafts. (3). Lecture/laboratory covering all phases of craft skills and equipment involved in technical theatre production.

2512. Introduction to Theatre Graphics. (3). Introduction to artistic graphic communication processes of technical theatre. Includes methodology and importance of beginning sketching, drafting; costume, set, and light design; as well as poster and program graphics.

2515. Stage Make-up. (3). Lecture/laboratory class in which fundamentals of theatrical make-up are studied through a series of make-up projects including corrective make-up, fantasy, mask and beard make-ups.

2530. Acting for Non-Majors. (3). Introduction to craft of acting. Development of actor's individual potential through basic technique. Performance of short scenes in class.

2531. Basic Acting Techniques. (3). First essential of acting study: exploration of the actor. Class exercises to develop relaxation, concentration, imagination, and improvisation skills.

2532. Character Development. (3). Principles of role analysis through study of subtext, character motivation, and objectives. PREREQUISITE: THEA 2531 or permission of instructor.

3411. Performance of Poetic Forms. (3). In-depth study of poetic literature as interpreted by the performer. To develop and heighten performer's sensitivity to language styles and rhythms.

3412. Interpretation Experiments. (3). Intensive study of theatrical image. Creative exercises in imaginative use of space, time, and experimental script materials in directing for the stage.

3451. Directing Narrative Theatre. (3). Theory and techniques in staging of experimental forms, poetic, narrative, and compiled scripts.

3461. Interpretation of Black Literature. (3). Principles and practice relative to oral interpretation of poems, speeches, and plays written by Black Americans. PREREQUISITE: THEA 1411.

3505. Movement Styles I. (3). Techniques and choreography in different movement styles. PREREQUISITE: THEA 2501.

3506. Movement Styles II. (3). Movement and dance of different periods, as well as special areas such as mime and masks. PREREQUISITE: THEA 3505.

3511. Stagecraft I. (3). Lecture/laboratory includes theatre terminology, theatre forms, production organization, job descriptions, and safety. Scenery construction to include painting, flat scenery, three-dimensional scenery, and introduction to steel materials. Required lab work. PREREQUISITE: THEA 2511 or 2512.

3512. Stagecraft II. (3). Lecture/laboratory includes shifting scenery, flying, rigging, properties design, and construction. Lectures and demonstrations on color in theatre and scenery painting equipment and methods. Required lab work. PREREQUISITE: THEA 3511.

3520. Directing for Non-Majors. (3). Theoretical and practical application of directing techniques. Short scenes staged for class. NOTE: *Will not count as an elective for a major or minor in Theatre.*

3521. Directing. (3). Basic organizational techniques of stage direction.

3531. Scene Study. (3). Development of ensemble work within scenes. PREREQUISITE: THEA 2532.

3532. Advanced Scene Study. (3). Continuation of 3531. Attention to material from modern classics. PREREQUISITE: THEA 3531.

3541. Performance Laboratory. (1-3). (3401). Practical application laboratory for performance courses and special workshops. (Repeatable for credit).

001. ACTING TECHNIQUES. (1). To be taken in conjunction with 2531/2532—Section 1 only.

002. ACTING TECHNIQUES. (1). To be taken in conjunction with 2531/2532—Section 2 only.

003. SCENE STUDY. (1). To be taken with 3531/3532 only.

004. STYLES. (1). To be taken with 4531/4532 or 6531/6532 only.

005. AUDITION PREPARATION. (1). Weekly meeting to review/critique actors' audition choices and progress.

006. VOICE TECHNIQUES. (1). For students seeking critical review and help with preparation and delivery of musical pieces.

007. STAGE MANAGEMENT. (1). Lecture and training sessions precede actual assignment to departmental productions. Stage manager's work closely with directors and oversee entire backstage operation during production run.

008. ANALYSIS. (1). Critical perceptions of Performance (and Production) skills developed through written critiques. Students evaluate at least 5 theatrical productions (afternoon or evening). May be taken in conjunction with THEA 1551. Guidelines of critique content/format available in Theatre Office (143).

009. NON-MAJORS. (1). For students (not theatre majors) who are, or wish to become, involved in Season or Lunchbox productions. A theatre faculty member helps students prepare for auditions.

010. TV/FILM. (1). To be taken with 4631-6631 only.

011. TOURING. (1). In conjunction with departmental ensemble groups only.

012. MUSIC-THEATRE WORKSHOP. (1). To be taken as part of Summer Program.

013. TOURING. (2). In conjunction with departmental ensemble groups only.

014. MUSIC-THEATRE WORKSHOP. (2). Summer Program.

015. MUSIC-THEATRE WORKSHOP. (3). Summer Program.

016. ADVANCED BALLET TECHNIQUE. (2). Intensive laboratory experiences in classical ballet technique. PREREQUISITE: permission of instructor.

017. ADVANCED CONTEMPORARY DANCE TECHNIQUE. (2). Intensive experiences in contemporary dance techniques. PREREQUISITE: permission of instructor.

3542. Production Laboratory. (1-3). (3501). (Same as CMUS 3542). Preparation for and participation in departmental theatre productions. Individualized work is in form of supervised laboratory situations. Running crews for season productions selected from participating sections. May be repeated for credit.

001. PUBLICITY. (1).

002. COSTUMES. (1).

003. LIGHTS. (1).

004. SOUND. (1).

005. SCENERY. (1).

006. PROPS. (1).

007. MAKE-UP. (1).

008. HOUSE MANAGEMENT. (1).

009. SPECIAL EFFECTS. (2). Instruction in how to safely create stage fires, explosions, smoke, rain/snow, thunder, lightning, supernatural illusions, etc. Offered alternate years. PREREQUISITE: permission of instructor.

010. SOUND SYSTEMS AND DESIGN. (3). Classes and lab work. Basic electronics and system hookups. Actual equipment use and aesthetics. Offered alternate years. PREREQUISITE: permission of instructor.

3561. Scene Design. (3). New materials and methods of rendering theatrical scene designs. Includes water color, acrylic, three dimensional models, and other media.

4401-6401. Interpretation of Children's Literature. (3). Adaptation of literature for individual and group performances in children's theatre and in instruction for elementary and secondary schools. Includes styles of literature, principles of performance, and techniques for performance adaptation. May be repeated for up to 6 hours credit with permission of instructor.

4411-6411. Stage Dialects. (3). Study and practice of foreign dialects for American stage. Offered alternate years. PREREQUISITE: COMM 1211.

4421-6421. Interpretation of Poetry. (3). Performer's response to relationship between style and views of reality in poetry of Elizabethan-Metaphysical, Romantic, Victorian, and Modern periods. PREREQUISITE: THEA 3411.

4431-6431. Interpretation of the Novel. (3). Studies in oral interpretation of prose fiction; attention to various literary styles and structures. PREREQUISITE: THEA 3411.

4441-6441. Interpretation of Drama. (3). Group performance in dramatic and narrative theatre styles. May be repeated for a maximum of 9 hours. PREREQUISITE: Audition for Moving Line Company.

4451-6451. Interpretation of Shakespeare. (3). Studies in oral presentation of scenes from selected comedies, histories, and tragedies, with exploration of character and dramatic structure.

4501-6501. Advanced Movement Styles. (3). Further development of technique, and refinement of personal as well as period styles. PREREQUISITE: THEA 3506.

4502-6502. Ensemble Movement. (3). Performance troupe blends improvisational techniques, voice, mime, acting, and physical movement. PREREQUISITE: permission of instructor.

4503-6503. Creative Dramatics. (3). Basic techniques and theories for use of dramatization in elementary and secondary education. Includes socio-drama, dramatization of school subjects and daily concerns, and improvisation and creation of dramatic plays.

4511-6511. Lighting and Sound Mechanics. (3). (3513) Introductory study of technical principles which support areas of theatrical lighting and sound design. Includes instrumentation and equipment, electricity and electronics, control systems, operational and maintenance principles and procedures for stage electricians and sound engineers.

4515-6515. Scene Painting. (3). Lecture/laboratory covering techniques of painting scenery for stage. Offered alternate years. PREREQUISITE: THEA 3561.

4516-6516. Technical Direction. (3). Lecture/laboratory for theatre technicians includes production organization and safety, engineering, rigging, materials control and supply ordering. Offered alternate years. PREREQUISITE: THEA 3512.

4517-6517. Materials and Technology. (3). Lecture/laboratory with general introduction to materials includes carpentry and lumber, metal-working and welding, fiberglass construction and casting, rigid and flexible foams and thermoplastics. Offered alternate years. PREREQUISITE: THEA 3512.

4521-6521. Advanced Directing. (3). Opportunity to experiment with directing original plays, adaptations, and period styles. Productions of class for the Lunchbox Theatre program. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 3521.

4523-6523. Children's Theatre. (3). Exploration of theories and styles of children's theatre, application of principles to problems in production and preparation of plays designed for children's audiences. May be repeated for up to 6 hours credit with permission of instructor.

4531-6531. Acting Styles. (3). Development of acting styles as influenced by environments of historical periods. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 3532.

4532-6532. Advanced Acting Styles. (3). Continued work in acting styles. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 4531.

4541. Internship. (1-6). (4011). Supervised work in actual university, community, or professional theatre productions on internship basis. Credit varies with amount of time and responsibility involved. May be repeated for a maximum of 12 semester hours. PREREQUISITE: permission of Director of Theatre.

4551-6551. Theatre History—Classic. (3). Shaping forces and theatrical forms in Western civilization from Greek times to Romanticism.

4552-6552. Theatre History—Modern. (3). Continuation of 4551 to present.

4553. Directed Individual Studies in Theatre. (1-3). For advanced student who wishes to do concentrated study in specific area of theatre. May be repeated for maximum of six hours. PREREQUISITE: permission of instructor.

4554-6554. Costume History. (3). Survey of clothing fashions from primitive times to present; special emphasis on psychological implications of fashion change applicable to theatre.

4562-6562. Costume Design. (3). Theory and techniques of costume design studied through series of design assignments. Study of color, line, fabric, and rendering styles. Special consideration given to character interpretation. PREREQUISITE: THEA 4554.

4564. Scenography. (3). Total production design—coordination of all aspects of costume, scenery, and lighting into whole of production. (May be repeated for maximum of 6 hours.) PREREQUISITE: THEA 4569.

4565-6565. Applied Costume Design. (3). Lecture/laboratory class covering all phases of the costume craft to include basic sewing techniques, basic pattern, drafting and draping techniques, costume prop construction, millinery techniques.

4567-6567. Lighting Design. (3). Lecture/seminar/practicum investigation of art of theatrical lighting design. Includes script analysis, design approaches and methodologies, procedures and practices for working designer, cue techniques, design styles and forms, and criticism of lighting design. Research, project work, and staged scenes required. PREREQUISITE: THEA 4511.

4568-6568. Advanced Lighting and Sound Design. (3). Lecture/seminar/practicum investigation of arts of lighting and sound design. Includes conceptual development of design, integration with the scenographic process, survey of forms and styles, and special design problems. Practical work on either main stage or ancillary productions required. PREREQUISITE: THEA 4567.

4569-6569. Styles of Design. (3). Historical evolution of, and practical approaches to, major styles of production design that dominate contemporary theatre. PREREQUISITE: THEA 3561.

4571-6571. Playwriting. (3). Theory and principles of writing plays for stage. Practice in writing either short or long play. May be repeated for maximum of 9 semester hours. PREREQUISITE: permission of instructor.

4581-6581. Dramatic Theory and Criticism. (3). Major documents in dramatic theory and criticism from Aristotle to present.

4582-6582. Analysis of Dramatic Literature. (3). Examining the script as blueprint to discover and evolve particular components which lead to its artistic fulfillment and unity. Advanced techniques of director and scenographer used to solve artistic/practical problems of specific plays. PREREQUISITE: THEA 4551 or 4552.

4591. Theatre Management. (3). Basic box office and publicity procedures for theatre. Offered alternate years.

4592-6592. Theatre Architecture and Facilities Planning. (3). Processes and techniques employed by theatre planners in design and construction/renovation of theatrical spaces and structures. Includes survey of theatre forms, historical development of theatrical structures and spaces, programming methods and procedures, specification, renovation techniques, multi-use structure concepts, and consultation procedures and practices. Offered alternate years. PREREQUISITE: permission of instructor.

4631-6631. Acting for Film and Television. (3). Educational experience for actor in media of film and television, concentrating on dramatic, commercial and documentary areas. PREREQUISITE: THEA 2531 (for acting majors)—OR—COMM 3823 or 3824.

4921-6921. Elements of Play Production. (3). Choosing the play, casting, directing, technical aspects of production as they relate to needs of people in educational and community settings.

K493 COMMUNICATION STUDIES (COMM)

Professor John P. Bakke, Director

1211. Voice and Articulation. (3). Principles of effective voice usage. Emphasis on improving voice characteristics and diction.

1311. Public Speaking. (3). Principles of ethical and effective public speaking; practice in construction and delivery of original speeches in presence of audience.

1780. Introduction to Human Communication. (3). Principles and processes underlying all human communication. Study of communication models, communication purposes and breakdowns, and variables related to interpersonal, small group, intercultural, and public communication.

1781. Introduction to Rhetoric and Communication Arts. (3). Principles, values, forms, and effects of persuasive public communication. Consideration of rhetorical styles and effects in speeches, debates, documentaries, and dramatic and entertainment forms.

1782. Media in Modern Society. (3). Historical, cultural, technological, economic, political, and social factors which help shape mass media messages in changing American society.

1851. Introduction to Film. (3). Film as a cultural, artistic, and social phenomenon.

2321. Argumentation and Debate. (3). Basic principles of argumentation; emphasis on developing practical skills in analysis, reasoning, evidence, and organization of argumentative speech; role of debating in contemporary society.

2322. Persuasive Speaking. (3). Study and practice in meeting special demands of persuasive speech situation. Advanced training in use of arguments and development of effective style.

2361. Black Rhetoric. (3). Speeches and rhetoric of black man's struggle in America. Emphasis on spokesmen such as Walker, Turner, Douglass, Washington, DuBois, Malcolm X, King, Carmichael, Baldwin, and Jones.

2911. Speech for the Elementary Classroom Teacher. (3). Emphasis on voice and articulation, classroom speaking, and oral interpretation of literature.

2912. Educational Communication. (3). Principles of informative communication as applied in small group, classroom, and training situations.

3322. Theories of Persuasion. (3). Principles underlying any communication designed to influence attitudes or behavior. Includes approaches to motivation, perception, message structure, attention, reasoning, audience analysis, persuasibility, and attitude change. Items for analysis drawn from speeches, advertising, radio, television and film.

3341. Discussion. (3). Study and practice of principles and techniques of discussion, dealing with current problems of wide interest and significance.

3342. Communication and Leadership. (3). Relationship between communication variables and leadership styles and effectiveness in various organizational and group settings.

3371. Freedom and Responsibility of Speech. (3). Development of freedom of speech as Western value and attendant problems of ethical practice, limitations, and responsibility.

3373. The Rhetoric of Social Protest. (3). Speeches, pamphlets, and rhetorical techniques of selected advocates of significant social change. Attention to symbols, language forms, enthymemes, and means of audience adaptation of genre of rhetoric of agitation, protest, and revolution as well as to role of rhetorical discourse in social change.

3800. Elements of Broadcasting. (3). (3881). Structure of broadcasting and economic influence and constraints within which the industry functions.

3801. TV Production Techniques for Journalists. (4). For majors in the broadcast journalism sequence; basic principles and techniques of video production. Production exercises. PREREQUISITE: permission of instructor.

3820. Broadcast Preparation and Performance. (3). Skills required for on-air performance in broadcasting emphasizing use of voice and copy preparation; presentation of public affairs programming, documentary narration, sportscasting, newscasting and combo-announcing.

3821. Radio Production and Studio Operations. (3). (3826). Preparation, production and evaluation of programs, including talk, discussion, interview, music, documentary and special event shows; emphasis on construction, editing, and compilation for broadcast use.

3822. Advanced Radio Production. (3). Intensive training in production of radio announcements, commercials, programs, and documentaries drawing upon production fundamentals. PREREQUISITE: A grade of C or better in CQMM 3821.

3823. Television and Film Production and Aesthetics I. (4). (Same as CMUS 3823). Basic production skills and theory; photography; audio control and recording; 16mm cinematography; and small format video. Hands-on production exercises. PREREQUISITE: permission of instructor.

3824. Television and Film Production and Aesthetics II. (4). Intermediate production skills and theory in film and video; extensive production exercises. PREREQUISITE: CQMM 3823 or permission of instructor.

3851. Art of Film. (3). (1851). Functions, development and techniques of film as fine and popular art. Study of film language and forms as means of expressionistic, Hollywood, observational, etc.

4011-6011. Communication in Organizations. (3). (3011). Information flow, communication systems, and communication breakdown in contemporary organizations. Emphasis on business, governmental, and institutional structures.

4013-6013. Communication in Political Campaigning. (3). (3013). Forms and effects of communication between politicians and constituencies; emphasis on campaign rhetoric via mass media, debates, model speeches, etc.

4101-6101. Contemporary Theories of Language. (3). Influence of language upon behavior, limitations of language as communicative system, and relationship between language and thought.

4341-6341. Interpersonal and Small Group Communication. (3). Advanced theory in logical, psychological, and sociological investigation of issues in small groups.

4360-6360. History and Criticism of Public Address. (3). Survey and analysis of speeches and speakers vital to social, political, and cultural movements in Western Civilization.

Ancient to contemporary times. May be repeated for a maximum of 6 hours.

4366. Undergraduate Seminar in Communication Arts. (3). Stresses individual work, preparation of papers and reports, and extensive class discussion; topics vary from semester to semester. May be repeated up to 6 hours.

4373-6373. Interracial Communication. (3). Special problems encountered in communication among races. Readings, discussion, and field study on how prejudice, stereotypes, and self-concepts can affect communication; exploration of rhetorical methods to minimize these problems. PREREQUISITE: CQMM 2361 or permission of instructor.

4374-6374. Directed Studies in Communication Arts. (1-3). Independent research in areas of special interest. Includes rhetoric, radio, television, and film. PREREQUISITE: permission of instructor.

4375-6375. Intercultural Communication. (3). Special problems encountered in communications between people of different cultural backgrounds. Focus on understanding communicative interaction between and among people with different national/cultural backgrounds and functioning more effectively in multi-cultural settings.

4704-6704. Theories of Communication. (3). (Same as JOUR 4704). Comparison of theories offered to explain character or effects of mass communication media ranging from Stimulus-Response Theory to Agenda Setting Theory.

4802-6802. Internship. (1-3). Field studies in communication. Supervised practical work with government institution, private business, film company, or TV station. Written analysis of experience required. May be repeated for maximum of 6 semesters hours. PREREQUISITE: permission of instructor. (S/U).

4810-6810. Broadcast Regulation and Program Policy. (3). Effects of FCC and other governmental regulations on broadcasting management and station operations. Topics: licensing, renewals, content control, obscenity, fairness, politics, and copyright.

4811-6811. Radio and Television Programming. (3). Analysis of individual program formats (with examples); use of this information along with ratings and other audience research to study design of program schedules.

4812-6812. Communications Law in the Performing Arts. (3). Artist, performer, management contractual relationships; acquisition, copyright and disposition of literary and audio-visual properties; production and distribution agreements; advertising law and other matters for TV, motion picture, radio and stage businesses.

4820-6820. Television Techniques for Business and Education. (3). Basic television studio equipment and operations; emphasis on instructional programming. Minor focus on other relevant media. Not open to radio-television-film production majors.

4824-6824. Cinematography/Videography. (3). Art of visual interpretation with strong concentration in theory and techniques of lighting. Experience with professional film and video cameras and light equipment. PREREQUISITE: CQMM 3824.

4825-6825. Creative Editing of Film and Video Tape. (3). Techniques of editing single and double system film and video tape. Overview of total post-production process, but concentrates primarily on aesthetics of continuity. PREREQUISITES: CQMM 3823 and 3824.

4831-6831. Radio and Television Sales and Advertising. (3). (Same as CMUS 4831). Relation of radio and television advertising to station, network, and station representative; role of sponsors, agencies, and allied groups.

4842-6842. Television Studio Production. (3). Techniques of studio and small-format TV production, including staging and direction of programs. PREREQUISITE: CQMM 3824.

4851-6851. Development of Contemporary Film. (3). Theatrical film from 1940 to present.

4852-6852. Origins of Film. (3). Historical survey of motion pictures, from the medium's pre-history to 1940. Emphasis on narrative film.

4853-6853. Documentary Form in Film. (3). History and criticism of documentary, educational, and industrial films. Study of non-fiction form.

4854-6854. Documentary Form in Broadcasting. (3). History and criticism of non-fiction broadcasting and cable-casting.

4855-6855. International Cinema. (3). Important national film traditions in their cultural and historical contexts, focusing on filmmakers whose work has had significant influence on world cinema.

4857-6857. History of American Broadcasting. (3). Comprehensive study of history of broadcasting industry in United States as it developed from 1895 to present. Use of primary sources.

4871-6871. Radio and Television Station Management. (3). Theories of management; special problems and situations confronting manager of broadcasting station, including personnel, operations, government regulations, programming, and sales.

4892-6892. Film and Video Production. (1-3). Film and video production workshop. Class members write, produce, direct, or assume crew responsibilities on productions. May be repeated for a maximum of 6 hours. PREREQUISITE: CQMM 3824 or permission of instructor.

4922-6922. Directing the Forensics Program. (3). For teacher charged with responsibility of developing and directing interscholastic or intercollegiate competitive speech programs; historical background for such programs, organizing techniques, recruiting, tournament direction, and other related concerns.

4970-6970. Screenwriting. (3). Writing for fiction and non-fiction film and television. Basic dramatic theory, narrative structure, characterization, dialogue, adaptation and the unique demands of the audio-visual media.

4980. Honors Studies. (3). Reserved for students enrolled in Theatre and Communication Arts Honors Program. Students attend 7000 level courses to receive undergraduate Honors credit. May be repeated for a maximum of 9 hours. PREREQUISITE: Permission of Theatre and Communication Arts Honors Committee.

4981. Senior Honors Thesis. (3). Supervised independent research project. Open only to students enrolled in the Theatre and Communication Arts Honors Program. May be repeated for a maximum of 6 hours. PREREQUISITE: Permission of Theatre and Communication Arts Honors Committee.

K497 DANCE (DANC)

The following 1000 level courses may be used to fulfill the University degree requirements for physical education. See *Graduation from the University* for details.

1821. Modern Dance I. (2). Introduction to modern dance techniques; emphasis on exploration of fundamentals of dance. For student with little or no previous experience in modern dance.

1822. Modern Dance II. (2). Continuation of development of modern dance techniques; emphasis on dance combinations and patterns of advanced beginner skill level. PREREQUISITE: DANC 1821 or its equivalent.

1823. Adagio. (2).

1825. Ballet I. (2). Introduction to classical ballet technique; emphasis on barre and center floor work for student with little or no previous experience in ballet.

1826. Ballet II. (2). Continuation of classical ballet techniques; emphasis on intermediate level adagio and allegro combinations. PREREQUISITE: DANC 1825 or its equivalent.

1827. Jazz Dance I. (2). Contemporary jazz dance techniques; emphasis on fundamentals of idiom; for student with little or no previous experience in jazz dance.

1828. Jazz Dance II. (2). PREREQUISITE: DANC 1827 or equivalent.

1831. Tap Dance I. (2). Fundamentals of beginning tap dance; emphasis on techniques of constructing tap rhythms and routines; for student with little or no previous experience in tap dance.

1832. Tap Dance II. (2). Development of intermediate skills and knowledge of tap dance. PREREQUISITE: DANC 1831 or equivalent.

2101. Dance Improvisation. (3). Elements of space, time and force; their interrelationships and their specific applications to movement sequences. Experiences in spontaneous development of dance phrases.

2201. Music for Dance. (3). Rhythmic foundations of basic movement patterns. Simple music notation skills. Pertinent music fundamentals and their applications to dance phrases. Techniques of accompaniment. Sources for choreography. PREREQUISITE: 4 hours of dance or permission of instructor.

3101. History of Dance. (3). Basic features of and uses for dance and expressive movement from early cultures to present.

3201. Labanotation. (3). Introduction to Laban method of recording dance; emphasis on reading skills. PREREQUISITE: intermediate level dance technique and permission of instructor.

4101. Dance Repertory. (3). Preparation and performance of excerpts from dance master works. Technical and stylistic elements of each work. May be repeated for a maximum of 9 hours. PREREQUISITE: permission of instructor.

4201. Choreography. (3). Elements of visual-temporal design. Sources of thematic movement material and traditional dance forms. Simple movement. Creation of an original dance. May be repeated for a maximum of 6 hours. PREREQUISITE: permission of instructor.

4301. Directed Studies in Dance. (1-3). Individual study, research or practicum. May be repeated for a maximum of 12 hours. PREREQUISITE: permission of instructor.

THE COLLEGE OF EDUCATION

M500 EDUCATION (EDUC)

Professional Studies Core Courses, EDUC 2500 through EDUC 4650 (except EDUC 3701 and 3900), will have a significant portion of time devoted to field and/or laboratory experiences.

2600. Diverse Learning Environments. (1). Orientation to types of educational settings and their characteristics. Emphasis on educator roles and self-assessment in relation to career options.

2600. Human Development and Learning Theory. (3). Principles of human development and learning processes across the life span; emphasis on facilitation of learning outcomes and social behaviors in educational settings.

3000. Instructional Planning and Delivery. (4). Instructional planning, selection, and utilization of strategies, activities, and resources necessary to deliver instruction.

3100. Assessment and Evaluation. (2). Overview of assessment and evaluation techniques in relationship to intended learning outcomes.

3200. Interpersonal Skills for Educators. (2). Development of human relations skills which facilitate learning process. PREREQUISITE: CQMM 2912.

3301. Child Development and Learning Theory. (2). Principles of human development and learning processes as they relate to infancy, early and middle childhood years.

3302. Adolescent Development and Learning Theory. (2). Principles of human development and learning as they relate to adolescence.

3360. The Adult Learner. (2). Variety of learning patterns and developmental characteristics of adults; emphasis on applications in programs or other activities for adult learners.

3401. Teaching the Exceptional Learner. (2). Overview of field of special education; characteristics and education of various exceptionalities; emphasis on developing skills for effective teaching of exceptional child in regular classroom setting.

3601. Classroom Management. (2). Utilization of appropriate knowledge and skills for managing the total classroom environment; emphasis on development of skills which facilitate effective teaching through constructive management techniques.

3600. Applications of Instructional Media. (3). Preparation and use of instructional media in school and training settings, including audiovisuals and use of television and computer applications in instruction.

3701. Professional Seminar. (1). Extension of student's professional preparation through a series of required and elective activities; exploration of issues and ideas related to professional development. PREREQUISITE: completion of Level I courses.

3900. Education Honors Program Colloquium. (3). Interdisciplinary colloquium on a broad education theme or topic. PREREQUISITE: junior standing and permission of the Education Honors Council.

4260. Job and Learning Task Analysis. (2). Principles and techniques of job analysis; emphasis on delineating job and learning task requirements and determining conditions and criteria for successful job or task performance.

4360. Instructional Design and Curriculum Development in Training Settings. (3). Instructional design techniques and applications in training settings; principles of curriculum development, instructional delivery, and evaluation.

4550. Organization and Management of Training Programs. (3). Development and management of instructional programs in non-school settings; focus on goals, personnel, operational, and budgetary considerations. PREREQUISITE: MGMT 3110.

4601. Educational Foundations for Teachers. (2). Historical, philosophical, and socio-cultural dimensions of American education; focus on developing a personal model of education which accommodates both current needs and future planning in K-12 setting.

4660. Educational Foundations for Teachers. (2). Training systems in historical and contemporary settings; examination of their function and unique characteristics; and construction of models of future systems.

4760. Special Problems: Educational Services. (1-3). Independent study and field projects on selected problems, interests, and needs related to educational programs in training settings.

4800. Advanced Professional Seminar. (1). Extension of student's professional preparation through a series of required and elective activities; exploration of issues and topics related to professional development. Serves as a capstone experience for synthesizing the student's professional preparation program. PREREQUISITE: senior standing.

4860. Practicum in Training Settings. (1-3). Opportunities to gain experience in a variety of settings; tailored to interests, needs and career pathways of student.

4901. Internship for Teachers. (3-9). Full-time planned and supervised experience in a setting appropriate to the student's area of specialization providing opportunities to synthesize knowledge and skills and to demonstrate professional competencies in an educational setting. PREREQUISITE: approval in advance.

- 001 Student Teaching in Elementary School
- 002 Student Teaching in Kindergarten
- 004 Student Teaching in Special Education
- 004 Student Teaching in Secondary School
- 006 Student Teaching in Art

- 006 Student Teaching in Business Education
- 007 Student Teaching in Distributive Education
- 008 Student Teaching in Health
- 009 Student Teaching in Industrial Arts
- 010 Student Teaching in Instrumental Music
- 011 Student Teaching in School Music
- 012 Student Teaching in Physical Education
- 013 Student Teaching in Vocational Home Economics

4902. Internship for Teachers. (3-6). Additional student teaching experience in same areas available in 4901.

4960. Internship in Training Settings. (3-12). Planned and supervised full-time experience in a training setting appropriate to the student's specialization area; opportunities to synthesize knowledge and skills and demonstrate professional competencies in an appropriate setting. PREREQUISITE: approval in advance.

COUNSELING AND PERSONNEL SERVICES

PROFESSOR ROBERT E. DAVIS, *Chairman*

Room 123, Patterson Building

The Department of Counseling and Personnel Services offers majors at the graduate level only.

M731 COUNSELING AND PERSONNEL SERVICES (COUN)

1661. Career Development. (3). Relationship of interests, aptitudes and careers. Includes exploration of work settings and activities to support individual career planning. Students expected to investigate work settings, relate this investigation to academic programs, and utilize this information in individual career development.

4611. Introduction to Counseling. (3). Exploration of history, principles and administration of counseling services in community agencies, schools and business and industry. Application of human relations experiences to personal growth and interpersonal relationships. Survey of applicable counseling services, skills and techniques.

4621. Humanistic Interactions. (3). Human relations exercises and other personal experiences related to effective learning climates. Includes communication skills for working in groups and one-to-one relationships and identification and referral of persons to appropriate resources.

4691-6691. Practicum in Residence Hall Staff Counseling and Advising. (3). Practical experience for residence hall staff. Instruction and supervision provided. Individual and group activities in counseling, advising, communication, and leadership. Concerns such as drug abuse, family planning information, and student discipline. Utilizes interdepartmental disciplines. (S/U).

4693. Practicum in Leadership Development. (3). Supervised experiences for developing or refining leadership skills. Practice in leadership style, communication, motivation, negotiation, conflict resolution, and parliamentary procedures. (S/U).

4770-79-6770-79. Workshops in Counseling. (1-3). Opportunity for growth for professionals in field of guidance and counseling. Application and study in field designated by specific workshop number. Student expected to develop appropriate skills and attitudes. (S/U).

4773-6773. Workshop in Group Process. (1-3).

4774-6774. Workshop in Community Services. (1-3).

4775-6775. Workshop in Student Appraisal. (1-3).

4776-6776. Workshop in Career Counseling. (1-3).

4777-6777. Workshop in Pupil Personnel Services. (1-3).

4778-6778. Workshop in Counseling. (1-3).

4779-6779. Workshop in College Student Personnel Service. (1-3).

4781-6781. Counseling Strategies for Crisis Intervention. (3). Process of crisis intervention. Study and practice in understanding crisis induced dysfunctional behavior, recognizing crisis situations, and crisis counseling procedures. Students to demonstrate competency in assisting in safely disengaging crisis participants, providing follow-up and referral.

4782-6782. Gerontological Counseling. (3). Survey of demographic, developmental, physiological-sensory and psychosocial aspects of aging as applied to counseling. Experiences in use of appropriate individual and group counseling techniques for aged, emphasis on particular crisis situations such as retirement, leisure, relocation, housing, institutionalization, dying, death, and survivorship.

4783-6783. Alcohol and Drug Abuse Counseling. (3). Process of counseling alcoholic and drug dependent persons. Study in modalities of treatment, philosophy of treatment, and referral.

CURRICULUM AND INSTRUCTION

PROFESSOR ROSESTELLE B. WOOLNER,

Chairman

Room 424, The College of Education Building

The Department of Curriculum and Instruction offers majors and minors in elementary education, secondary education and a major in early childhood education.

M650 ELEMENTARY EDUCATION (ELED)

2211. Introduction to Early Childhood Education. (3). Principles and practices of early childhood education programming and children's characteristics, infancy through third grade, in United States. Supervised lab experiences in varied socio-economic day care centers, kindergartens, and primary grades. *Two lecture, two laboratory hours per week.*

3111. Early Childhood Social Studies and Children's Literature. (3). Description, application and utilization of selected teaching methods, strategies and organizational principles for teaching social science concepts and literature to children, birth through eight years. *Two lecture, two laboratory hours per week.*

3121. Early Childhood Math and Science. (4). Description, application and utilization of selected teaching methods, strategies and organizational principles for teaching mathematics and science to children, birth through eight years. *Three lecture, two laboratory hours per week.*

3241. Teaching of Language Arts: Elementary School. (3). Scope and sequence of skills, assessment, organizational strategies and materials for listening, speaking and writing. Interrelatedness of these skills emphasized through activities which teach children to think and communicate. *Two lecture, two laboratory hours per week.* PREREQUISITES: EDUC 2600, 3301.

3261. Teaching Mathematics: Elementary School. (2-3). Emphasis on methods and materials for teaching mathematics to elementary school student. PREREQUISITES: EDUC 2600, 3301.

3261. Teaching Science: Elementary School. (3). Emphasis on methods and materials for teaching science to the elementary school student. PREREQUISITES: EDUC 2600, 3301.

3271. Teaching Social Studies: Elementary School. (2). Emphasis on methods and materials for teaching social studies to elementary school student. PREREQUISITES: EDUC 2600, 3301.

4211-6211. Comparative Study in Early Childhood Education. (3-6) Examination and comparison of early childhood programs in United States and other countries. Foreign and domestic travel may be planned. PREREQUISITE: consent of instructor.

4242. Teaching of Reading: Elementary School. (2). Scope and sequence of decoding and comprehensive skills; approaches, materials; and instructional techniques appropriate in K-8 grades. *One lecture, two laboratory hours per week.* PREREQUISITE QR COREQUISITE: ELED 3241 or classroom experience.

4243. Teaching Reading: Assessment, Correction. (2). Emphasis on assessment of reading levels and skills and materials and methods for different learning styles. Clinical experience required. PREREQUISITES: ELED 3241, 4242, or SCED 4342.

4344. Teaching Reading: Elementary School Content Areas. (2). Methods, materials, and organizational patterns by which reading skills can be developed and improved with other communication skills through integration with teaching strategies in content subjects. *One lecture, two laboratory hours per week.*

4411. Home School Relationships in Early Childhood Education. (3). Parent-Teacher-Child relationships; conferring, interviewing, reporting procedures and techniques; pupil evaluation methods; typical child characteristics. Supervised lab experiences in varied socio-economic day care centers, nursery schools, kindergartens, and primary grades. *Two lecture hours, two lab hours per week.* PREREQUISITES: ELED 3111, 3121.

M670 SECONDARY EDUCATION (SCED)

The methods courses in high school subjects include: objectives, content, and grade placement of subject; tools of instruction, organization of courses, and teaching procedures and practices. Field/laboratory experiences required.

3321. Materials and Methods in Secondary Art. (3). (Same as ART 4421).

3322. Materials and Methods in Secondary Music. (3). (Same as MUSE 4203).

3331. Teaching Methods and Curricular Principles Applied to Physical Education. (3). (Same as PHED 3807).

3332. Materials and Methods in Health Education. (3). (Same as HLTH 3102).

3341. Materials and Methods in Secondary English. (3).

3346. Materials and Methods in Secondary Speech. (3).

3348. Materials and Methods in Secondary Foreign Language. (3).

3351. Materials and Methods in Secondary Mathematics. (3).

3362. Materials and Methods in Secondary Science. (3).

3371. Materials and Methods in Secondary Social Studies. (3).

3376. Methods of Teaching Shorthand. (2). (3381).

3377. Methods of Teaching Typewriting and Office Practice. (2). (3381).

3378. Methods of Teaching Bookkeeping, Accounting, and Date Processing. (3). (3382).

3379. Methods of Teaching General Business, Economics, Business Law, and Salesmanship. (2). (3382).

3380. Materials and Methods in Distributive Education. (3). (Same as DTED 4630).

3383. Materials and Methods in Secondary Home Economics. (3). (Same as HMEC 3383).

3384. Materials and Methods in Secondary Industrial Arts. (3). (Same as VTED 4210).

4341. Teaching Literature for Adolescents. (3). Theories and techniques of teaching literature for adolescents at secondary level; survey and analysis of appropriate fiction, drama, and poetry for teenage reader.

4342. Teaching Reading: Secondary Content Areas. (2). Methods, materials, and organizational patterns by which reading skills can be developed and improved with communication skills through integration with teaching strategies in content subjects.

4441. Secondary School Curriculum. (2). Typical and innovative curricular programs for secondary schools.

M675 CURRICULUM AND INSTRUCTION (CIED)

1201. Reading Skills for University Students. (1-3). Designed to improve college students' reading skills. Clinical laboratory approach; individual diagnostic/prescriptive programs devised for each student. Emphasizes vocabulary, comprehension, word attack, critical reading skills, increased reading rate, and a variety of study techniques. NOTE: Credit for this course may not be counted toward any degree unless prior permission has been obtained from the dean of the college in which the degree will be granted. "T" grades will be used in this course.

3901. Special Problems in Instruction. (1-6). Individual investigation in area of instruction. PREREQUISITE: experience as teacher or satisfactory evidence of being qualified to benefit from course.

4306. Educational Methods for Adult Education. (3). Emphasis on trends, instructional and resource materials, and instructional techniques used in adult educational programs.

4701-6701. Workshop in Curriculum and Instruction. (1-9). Various areas of curriculum and elements of instruction explored. Active student participation included. See *Schedule of Classes* for specific topic. Repeatable for credit, but for no more than 9 semester hours for any one topic. (S/U).

4761-6761. Aerospace Education in Schools. (3). Aerospace content and flight experiences. Emphasizes classroom application.

4950-6950. Selected Topics in Curriculum and Instruction. (1-3). Current topics in areas of curriculum and instruction at all levels. May be repeated with change in topic and content. See *Schedule of Classes* for specific topic.

DEPARTMENT OF EDUCATIONAL ADMINISTRATION AND SUPERVISION

PROFESSOR FRANK W. MARKUS,
Chairman

Room 101, The College of Education Building

The Department of Educational Administration and Supervision offers majors at the graduate level only.

FOUNDATIONS OF EDUCATION

PROFESSOR CARLTON H. BOWYER,
Chairman

Room 404, The College of Education Building

The Department of Foundations of Education offers majors at the graduate level only.

M700 EDUCATIONAL FOUNDATIONS (EDFD)

4008. Special Problems in Cultural Foundations of Education. (1-3). Individual investigation and report of specific problem under direction of faculty member. PREREQUISITE: permission of instructor.

4012-6012. History of American Education. (3). Development and growth of educational practices, institutions, and theories in United States from colonial period to present.

4051-6051. Anthropology and Education. (3). (Same as ANTH 4051). Cultural transmission process; emphasis on

identifying different behavioral, cognitive, and learning styles of various ethnic groups within American society, selected third world countries and U. S. subcultural groups within public education system.

M710 RESEARCH METHODOLOGY AND STATISTICS (EDRS)

4518. Special Problems in Educational Measurement. (1-3). Individual investigation and report of specific problem under direction of faculty member. PREREQUISITE: permission of instructor.

4530-6530. Microcomputers in Education: Theoretical and Technical Foundations. (3). History, development, and status of microcomputers in education and introduction to the technical knowledge and skills needed to operate microcomputers for specialized educational applications. Prerequisite knowledge for more advanced computer-related training in different education specialty areas.

4541. Fundamentals of Applied Statistical Methods. (3). Use of statistical techniques in education and behavioral sciences; emphasis on practical use and interpretation of concepts. Self-instructional.

4542. Fundamentals of Applied Research. (3). Basic research designs, problem of replicability, and methodology used in proposing and reporting research; emphasis on referencing and interpreting research literature.

M720 EDUCATIONAL PSYCHOLOGY (EDPS)

2111. Human Growth and Development. (3). Life-span approach to principles and processes of human growth and development.

4108. Special Problems in Educational Psychology. (1-3). Individual investigation and report of specific problem under direction of faculty member. PREREQUISITE: permission of instructor.

4114. Human Development: Maturity and Aging. (3). Survey of intellectual/cognitive changes, psychosocial and psychological developmental issues which occur during the later portions of the life span and their implications for education.

HEALTH, PHYSICAL EDUCATION, AND RECREATION

PROFESSOR MELVIN A. HUMPHREYS,
Chairman

Room 108, Field House

Majors and/or minors are offered in (1) Health, (2) Physical Education, and (3) Recreation and Park Administration.

M740 HEALTH (HLTH)

1102. Personal Health. (3). Physiological basis of correct living, including fundamental biological facts; psychological aspects of human behavior as they affect individual health conduct and mental hygiene; agents of disease and modern scientific methods of controlling them.

1202. Introduction to Community Health. (3). Purpose, roles, responsibilities and services of community health agencies; environmental health, sanitation, public health, community relations and health career trends and issues.

3102. Materials and Methods in Health Education. (3). (Same as SCED 3332). Methods, materials, and resources for health teaching; emphasis on improving health behavior through sound health teaching.

3202. The School Health Program. (3). Historical and philosophical study of growth and development of health education. School health programs, health services, healthful school environment and health instruction.

3306. Elementary School Health Education. (3). School health program involving health services, healthful school living, health screening, home and school safety; health content, skills and materials suitable for elementary education; first aid with CPR.

3402. Chronic and Communicable Diseases. (3). Modern concepts of disease; etiology, screening, detection, prevention and control of common communicable and chronic diseases.

4102. Critical Issues in Health. (3). Critical and controversial issues of health explored.

4182-6182. Health Aspects of Gerontology. (3). Current issues and trends in gerontology on the health and quality of life of the aging.

4202-20-6202-20. Workshop in Health. (1-6). Selected phases of health and health education through group study. In-depth study in areas of interest to persons in health education and related fields. (S/U).

4203-6203. Workshop in Death and Dying. (1-3).

4204-6204. Workshop in Sexuality Education. (1-3).

4205-6205. Workshop in Drug Education. (1-3).

4302-6302. Observation in Community Health Agencies. (3). Introduction to purposes, objectives, functions and programs of community health and welfare agencies, with opportunities to visit public and private agencies and interview various representatives.

4402. Practicum in Public Health Education. (1-6). Field experience in public health education. Practical work under supervision of government or voluntary agencies. (S/U).

4502. Problems in Health Education. (1-3). Independent study or research project on selected health problems or issues. PREREQUISITE: consent of instructor.

4602-6602. Organization and Administration in Public Health. (3). Basic functions, principles, and procedures of organization and administration as applied to health. Emphasis on relationship and responsibilities of personnel in planning, promoting, improving and evaluating total health activities in family-centered health services.

4802-6802. Environmental Health. (3). Survey of complex association between environment and human productivity, health, and happiness. Environmental factors within the general framework of ecological perspective in which the interrelationships of all living things to one another affect human growth and well being.

4902. Selected Topics in Health. (1-3). Current topics in health. May be repeated with change in topic and content. See *Schedule of Classes* for specific topics.

M745 SAFETY EDUCATION (SAFE)

2102. First Aid and Emergency Care. (3). (HLTH 2102). Safety skills and techniques of immediate and temporary care in event of injury or sudden illness. Successful completion qualifies student for standard first aid and personal safety ARC certificate.

2202. Safety Education. (3). (HLTH 2202). Causes of accidents and action designed for prevention of accidents in home, school, and community. Content and materials for safety education in school instructional program.

2703. Water Safety Instructor. (3). (PHED 2703). Basic life support techniques of Cardiopulmonary Resuscitation and other emergency life support situations. Successful completion qualifies student for certification in basic life support course Cardiopulmonary Resuscitation (CPR) and Basic First Aid by American Red Cross.

3302. Cardiopulmonary Resuscitation and Emergency Life Support. (3). Basic life support techniques of Cardiopulmonary Resuscitation and other emergency life support situations. Successful completion qualifies student for certification in basic life support course Cardiopulmonary Resuscitation (CPR) and Basic First Aid by American Red Cross.

3502. Prevention and Care of Athletic Injuries. (3). (HLTH 3502). Practical and theoretical aspects of treatment of athletic injuries in athletic training program; supplies, training table, therapeutic equipment, and techniques in conditioning and bandaging.

4207-6207. Workshop in Driver and Traffic Safety Education. (1-3). For in-service and prospective teachers of grades 7-12. Improvement of teaching-learning process as applied to driver and traffic safety education. Attention to common elements of teaching methodology, utilization of appropriate driver and traffic safety education materials and resources and evaluative criteria. (S/U).

4335-6335. Driver and Traffic Safety Education I. (3). (SCED 3335). Basic knowledge and skills to deal with problems of vehicular traffic. Defensive driving and driver improvement techniques stressed. Students desiring teacher certification must enroll concurrently in SAFE 4336 for one semester hour in order to complete laboratory requirements.

4336-6336. Driver and Traffic Safety Education — Lab I. (1). Laboratory experiences dealing with classroom and in-car instruction. Required for all students desiring certification in driver education. To be taken concurrently with SAFE 4335. Two hours each week TBA.

4337-6337. Driver and Traffic Safety Education II. (3). (SCED 3336). Advanced driver and traffic safety educational activities. Includes study of current research in accident causation and prevention. Students desiring teacher certification must enroll concurrently in SAFE 4338 for one semester hour in order to complete laboratory requirements.

4338-6338. Driver and Traffic Safety Education — Lab II. (1). Laboratory experiences dealing with classroom, in-car multi-vehicle range and simulation instruction. To be taken concurrently with SAFE 4337. Two hours each week TBA.

4902. Selected Topics in Safety Education. (1-3). Current topics in safety education. May be repeated with change in topic and content. See *Schedule of Classes* for specific topic.

4922. Emergency Medical Technology. (9). Pre-hospital emergency care for the Emergency Medical Technician. Recognition and treatment of traumatic and nontraumatic injuries, medical emergencies; observations of local emergency medical service providers. Successful completion will qualify student for State Certification Examinations. PREREQUISITES: Junior standing, SAFE 2102 and 3302; or consent of instructor.

M750 PHYSICAL EDUCATION (PHED)

Required Physical Education activity courses are to be selected from the courses numbered 1000 through 1941. NOTE 1: The prerequisite for each advanced activity course is the introductory course or its equivalent.

NOTE 2: Any student except those with a major or minor in Physical Education has the option of taking these activity courses for a letter grade or on a credit/no credit basis. Students majoring in the Fogleman College of Business and Economics should check with their adviser before registering on a credit-no credit basis.

NOTE 3: PHED 1001 (Figure Control/Conditioning) may be repeated once for credit. All other physical activity courses listed below may be repeated when title and content vary.

NOTE 4: Dance courses (DANC prefix) at the 1000 level in the Department of Theatre and Communication Arts may be used to meet the University physical activity course requirements.

1000. Selected Physical Education Activities. (1-3). Current activities in physical education. May be repeated with a change in topic.

1001. Figure Control and Conditioning. (2).

001 JOGGING

002 EXERCISE AND WEIGHT CONTROL

003 CONDITIONING FOR VARSITY SPORTS

1002. Fitness for PHED Majors. (2). Introduction to the components of physical fitness with consideration given to evaluation processes, program development and techniques of skill performance.

1201. Adaptive Activity. (2). May be repeated for a maximum of 4 hours.

1301. Weightlifting. (2).
001 MACHINES
002 FREE WEIGHTS AND CONDITIONING
003 POWER WEIGHTLIFTING
1331. Camping. (2).
001 BACKPACKING
1332. Advanced Camping. (2).
001 ROCK CLIMBING
002 MOUNTAINEERING
003 CAVING
1361. Equestrian. (2).
001 WESTERN STYLE
1412. JUDO. (2).
001 SELF DEFENSE TECHNIQUES
1413. Advanced Judo. (2).
1431. Wrestling. (2).
1441. Karate. (2).
1442. Advanced Karate. (2).
1451. Boxing Skills. (2).
1461. Fencing. (2).
001 KENDO
1501. Tennis. (2).
1502. Advanced Tennis. (2).
1521. Racquetball. (2).
1522. Advanced Racquetball. (2).
1531. Handball. (2).
1541. Badminton. (2).
1542. Advanced Badminton. (2).
1551. Archery. (2).
1561. Bowling. (2).
1571. Golf. (2).
1572. Advanced Golf. (2).
1581. Recreational Games. (2).
001 NEW GAMES
1621. Gymnastics. (2).
001 MEN'S EVENTS
002 WOMEN'S EVENTS
003 CHEERLEADING STUNTS AND TUMBLING
004 STUNTS AND TUMBLING
1622. Advanced Gymnastics. (2).
001 MEN'S EVENTS
002 WOMEN'S EVENTS
1651. Rifle. (2).
001 HOME FIREARM SAFETY AND MARKSMANSHIP
1711. Beginning Swimming. (2).
1712. Elementary Swimming. (2).
1713. Intermediate Swimming. (2).
- *1722. Swimming — Lifesaving. (2).
- *1741. Advanced Swimming. (2).
001 CONDITIONING THROUGH SWIMMING
- *1761. Springboard Diving. (2).
- *1771. Scuba. (2).
- *1772. Advanced Scuba. (2).
- *1781. Boating and Small Craft. (2).
001 KAYAKING
002 RAFTING
003 SMALL BOAT CRAFTING
004 SAILING
005 CANOEING
1811. Rhythms for Elementary School. (2).
1812. Square and Round Dance. (2). American square, round and contra dance.
1813. Folk and Social Dance. (2). International folk dance and American ballroom and social dance.
1921. Basketball. (2).
1922. Volleyball — Basketball. (2).
1923. Volleyball. (2).
1931. Soccer and Field Sports. (2).
1941. Track and Field Events. (2).
- *The prerequisite for these courses is Physical Education 1713.
2004. Team Sports (Basketball and Volleyball). (2). Knowledge, skills and techniques for prospective physical educator
2005. Team Sports (Soccer, Touch Football, Track and Field). (2). Knowledge, skills and techniques for prospective physical educator
2006. Individual Sports (Badminton, Bowling, Archery and Recreational Games). (2). Knowledge, skills and techniques for prospective physical educator
2007. Individual Sports (Tennis and Golf). (2). Knowledge, skills and techniques for prospective physical educator.
2008. Stunts, Tumbling and Gymnastics. (2). Techniques and skills in stunts, tumbling and gymnastics; emphasis on selection, utilization of spotting skills, characteristics of skills and performance assessment of students K-12.
2009. Dance (Elementary, Folk and Square). (2). Skills and knowledge for prospective physical educator.
2101. Principles of Coaching. (2). Facets, responsibilities and knowledge essential for the articulation of athletic programs within the educational setting for student-coach.
2103. Fundamentals and Techniques of Football. (2). Coaching techniques, training and conditioning methods appropriate to football.
2203. Fundamentals and Techniques of Basketball. (2). Coaching techniques, training and conditioning methods appropriate to basketball.
2303. Fundamentals and Techniques of Track and Field. (2). Coaching techniques, training and conditioning methods appropriate to track and field

2403. Fundamentals and Techniques of Baseball and Softball. (2). Coaching techniques, training and conditioning methods appropriate to baseball and softball.

2503. Coaching Volleyball. (2). Coaching techniques, training and conditioning methods appropriate to volleyball.

2903. History and Principles of Physical Education. (3). Origin and nature of modern physical education as developmental experience and medium of education. Scientific and philosophical principles of physical education.

3303. Adepted Physical Education. (3). Lectures, demonstrations, and problems of mechanics of physical deformities and their causes; abnormalities of spine, feet, and other postural and functional conditions; and methods of class organization. *Two lecture hours per week, plus laboratory periods to be arranged.*

3403. Kinesiology. (3). Analysis of bodily movements in terms of the muscular forces operating on bones. PREREQUISITES: BIOL 1631 and 1632

3703. Physiology of Exercise. (3). Scientific basis of physiological principles on various systems and organs of the body during muscular activity. Emphasis on principles of motor performance and training. PREREQUISITES: BIOL 1631 and 1632.

3803. Motor Learning and Development. (3). Principles of motor development and learning and their relationship to motor learning and performance.

3806. Physical Education for Young Children. (2-3). Physical education for early childhood through 6th grade; philosophy, program planning and practical experience, observing and directing play activities for children. Laboratory experiences to be arranged.

3807. Teaching Methods and Curricular Principles Applied to Physical Education. (3). (Same as SCED 3331). Application of teaching methodologies and curriculum development principles to physical education programs K-12. Laboratory experiences required.

4102-6102. Workshop in Physical Education, Sport and Dance. (1-6). Selected phases of physical education, sport or dance through group study. In-depth study of area of interest and need for physical education teachers, coaches and administrators. May be repeated with a change in topic. (S/U).

4204. Tests and Measurements in Physical Education. (3). Measurement techniques, tools and resources and their application to assessment of physical performance and fitness factors. Laboratory experiences required. PREREQUISITE: EDUC 3100.

4303. Problems in Physical Education. (1-3). Independent study and/or research project on selected physical education problem, issue or concern. PREREQUISITE: permission of instructor.

4503. Organization and Administration of Physical Education. (3). Administrative problems of physical education, including curriculum, facilities, buying and caring for equipment, general class organization, and organization of intramural program.

4613-6613. Management and Care of Athletic Facilities and Equipment. (3). Modern techniques and procedures used in management of interscholastic and intercollegiate athletic facilities. Additional emphasis on selection and care of appropriate functional athletic equipment.

4903. Selected Topics in Physical Education. (1-3). Current topics in physical education. May be repeated with change in topic and content. See *Schedule of Classes* for specific topics.

M760 RECREATION (RECR)

2105. Introduction to Recreation and Perks. (3). Nature of recreation experience and its importance to the individual; influence of leisure on society; public, voluntary, military and commercial delivery systems for recreation and park services.

2205. Youth Service Organization. (2). Introduction to agencies servicing leisure time needs of children and adults. Emphasis on YMCA, YWCA, CYO, JCC, BSA, and GSA. Objectives, organization, program, and membership of principal national youth agencies.

3102. Introduction to Therapeutic Recreation. (3). Theoretical and philosophical foundations of therapeutic recreation, history of therapeutic recreation, concepts of illness and disability, role of the professional recreation therapist, and survey of therapeutic recreation services and settings.

3103. Outdoor Education. (2). (3705). Philosophy, modern trends, park interpretation, administration, program content and methods of leadership in outdoor education activities. Opportunities for field trips to practice leadership skills.

3104. Public, Private and Commercial Recreation Services. (3). Public, private and commercial recreation agencies; evaluation of overall range of recreation units; critical study of fundamental differences among these delivery systems.

3105. Philosophy and Principles of Recreation. (2). Work leisure, play, and recreation; attention to sound principles of recreation.

3202. Techniques in Therapeutic Recreation. (3). Basic therapeutic recreation methods emphasizing leadership and intervention techniques, assessment of client needs, activity analysis, program planning, and evaluative procedures.

3203. Resource Management in Recreation. (3). (3405). Management, operation and maintenance of areas and facilities within field of recreation and parks; identification, acquisition, allocation, development and management of land and water resources through environmentally sound techniques.

3204. Management of Recreation Services. (3). Interpersonal skills necessary in administration and management of recreation personnel; critical areas of manager/employee relationships; legal basis and legal aspects of recreation and park service. Offered alternate years only.

3205. Park and Recreation Facilities. (2). Planning, development, and maintenance of parks and recreation facilities. Includes inspection, comprehensive recreation surveys, and planning a layout.

3305. Program Planning in Recreation. (3). Program fields in relation to programming principles, planning objectives, structural organization, purposes and values of types of activities, programs for special groups, and program evaluation.

3605. Outdoor Recreation. (2). Organization and administration of programs and activities in large park areas and forests. Outings, campfire programs, picnics, hiking, outdoor cookery, trailing, climbing, class and field activity.

3905. Recreation for Special Populations. (3). Population segments of American society that are considered physically, socially, mentally and emotionally abnormal; emphasis on examining recreational needs of special populations.

4102. Leisure Education for Recreation Therapy. (3). Leisure education as applied in recreation therapy settings. Analysis of groups served, programs offered, interagency coordination and general trends in the profession today.

4103. Camp Administration, Counseling and Programming. (3). (3505). History, administration, organization and operation of organized camping programs; emphasis on program planning, camp administration, staff selection, training and camp counseling techniques as practiced today.

4104. Leadership Seminar in Recreation. (3). (3805). Dynamics of leadership; theories, principles and practices of leadership; research in leadership, issues and problems of working with individuals and groups.

4105. Recreational Leadership. (3). Development of skills and techniques necessary for successful leadership in recreation and park programs.

4203. Aquatic Administration. (2). Administration and management of aquatic programs, emphasizes organization and direction of aquatic programs in recreational and educational environments.

4305. Field Problems in Recreation. (1-6). Selected problems in areas of recreation and parks through individual and group field experience. PREREQUISITE: permission of instructor.

4405-6405. Organization and Administration of Recreation. (3). Community organization, its philosophy, foundation and principles. Selected administrative practices that relate to successful recreational organization and administration.

4505. Recreation Surveys. (3). Program observation, analysis, need assessment and evaluation.

4605. Internship in Recreation and Perks. (3-18). Professional field experience; opportunity to relate theory to practical experience. PREREQUISITE: Consent of instructor. (S/U).

4705-6705. Workshop in Recreation and Perks. (1-6). Selected phases of recreation, parks or leisure studies. In-depth study of areas of interest and need for persons in recreation and parks or related fields. May be repeated with a change in topic. (S/U).

4905. Selected Topics in Recreation, Perks, and Leisure Studies. (1-3). Current topics in recreation, parks, and leisure studies. May be repeated with change in topic and content. See *Schedule of Classes* for specific topic.

HOME ECONOMICS AND DISTRIBUTIVE EDUCATION

PROFESSOR DIXIE R. CRASE, *Chairman*

Room 404, Manning Hall

Majors and minors in (1) Home Economics, (2) Vocational Home Economics, (3) Distributive Education.

M770 HOME ECONOMICS (HMEC)

1100. Management in Home Economics. (1). Scope of Home Economics, educational preparation, professional orientation and research pertinent to the field. (S/U). PREREQUISITE: Home economics major.

1101. Personal Development and Human Relations. (3). Individual and group adjustment, influences contributing to successful marriage and family life.

1105. Clothing Selection and Construction. (3). Standards in selecting and purchasing, construction of cotton garments to meet individual needs. *One lecture, four laboratory hours per week.*

2004. Technical Skills for Home Furnishings. (3). Students interested in housing, home furnishing and related areas focus on varied program of technical skills involving quick-sketch problems, freehand floor-plans, and collages. For home economics majors who lack skills necessary to demonstrate concepts of depicting home furnishing interiors.

2005. Introduction to Fashion Merchandising. (3). Introduction to the types of enterprises, activities, operations, interrelationships, and practices in fashion industry. Emphasis on merchandising terminology and techniques.

2102. Food Selection and Preparation. (3). Principles underlying selection and preparation of foods with introduction to planning and serving of meals. Open to freshmen. *One lecture, four laboratory hours per week.*

2104. Home Furnishings and Related Arts. (3). Elements and principles of design applied to selection and arrangement of house and its furnishings.

2106. Visual Merchandising. (3). (Same as DTED 2106). Theory and practice in visual merchandising (display); especially retail interior and window display techniques, display creation, planning promotions, and determining budgets. *One lecture, four laboratory hours per week.*

2202. Elementary Nutrition. (3). Nutritive value of food, factors influencing body food requirement and health. Open to freshmen.

2205. Clothing Construction. (3). Fundamental principles of clothing construction, fitting and handling wool, silk, and

synthetic fabrics. *One lecture, four laboratory hours per week*. PREREQUISITE: HMEC 1105

3100. Consumer Education. (2). (3406). Examination of consumer problems in today's market place; emphasis on decision making, consumer rights and responsibilities and consumer information sources.

3106. Professional Development Merchandising Seminar. (1). Professional orientation and placement for the merchandising practicum experience.

3204. Housing and Equipment. (2). (4203). Housing as it relates to conditions of family living. Principles underlying construction, use, and care of household equipment.

3206. Merchandising Systems. (2). Analysis of formulas used to plan and control the flow of merchandise through the use of both computer and manual systems.

3301. Child Development and Learning Theory. (2). (Same as EDUC 3301). Principles of human development and learning processes as they relate to infancy, early and middle childhood years. COREQUISITE: HMEC 3401 for Vocational Home Economics majors

3302. Meal Preparation and Table Service. (3). Nutrition fundamentals in individual and family diets, meal planning, marketing and table service for various occasions. *One lecture, four laboratory hours per week*. PREREQUISITE: HMEC 2102.

3383. Materials and Methods in Secondary Home Economics. (3). (Same as SCED 3383).

3393. Occupational Education in Home Economics (3). History, philosophy, and organization of Home Economics Occupational Education; emphasis on instructional strategies and evaluation through classroom and on-site participation. PREREQUISITE: HMEC 3383

3401. Parenthood Education. (1). Parental role, parent-child relationship and factors that influence parenthood. COREQUISITE: HMEC 3301.

3602. Institutional Management and Equipment. (3). Observation and practice in handling problems of organization and management of quantity food service.

4101-6101. Nursery School Curriculum. (3). Application of child development principles to program planning; infancy through four years of age.

4102. Diet Therapy. (3). Dietary problems applicable to prevention and treatment of disease in which therapeutic diets are of major importance. PREREQUISITES: BIOL 1631, HMEC 2202, 4402, or permission of instructor.

4103. Family Economics (2). Management of family resources as they relate to satisfying home and family life. Includes problems in consumer goods and services.

4200. Readings in Home Economics. (1-3). For senior home economics majors; in-depth reading or research in area of specialization. PREREQUISITE: senior home economics majors only.

001 CHILD DEVELOPMENT AND FAMILY RELATIONS. (1-3).

002 FOODS AND NUTRITION. (1-3).

003 FAMILY ECONOMICS AND CONSUMER EDUCATION. (1-3).

004 HOUSING AND HOME FURNISHINGS. (1-3).

005 CLOTHING AND TEXTILES. (1-3).

006 FASHION MERCHANDISING. (1-3).

4201. Preparation For Marriage. (3). Courtship, marriage, and achievement of satisfaction in family life. PREREQUISITE: HMEC 1101.

4202. Catering. (3). (3702). Special food preparation and service for parties, dinners and teas; historical background of sectional foods in U. S. with laboratory preparation. *Six lecture/laboratory hours per week*. PREREQUISITES: HMEC 3602 and 4502.

4204-6204. Furnishings Problems and Presentations. (2). Problems in planning, coordinating, and purchasing of home furnishings. *One lecture, three laboratory hours per week*. PREREQUISITE: HMEC 2004, 4304.

4301. Nursery School Practicum. (3). Participation in and direction of various nursery school activities. *One conference, five laboratory hours per week*. PREREQUISITE: HMEC 3301. (S/U).

4302. Food Production Practicum. (3). (3802). Personnel management, cost control and quality control in specific organizations; experience in approved food services. *One lecture, four laboratory hours per week*. (S/U) PREREQUISITES: HMEC 3602 AND 4502.

4304-6304. Trends in Housing and Home Furnishings. (3). (3104). Major trends and influences on contemporary residential furnishings as these affect home furnishings merchandising. PREREQUISITE: HMEC 2104.

4306-6305. Trade Construction of Clothing. (3). Clothing construction based upon industrial trade methods and techniques; in logical sequence, in garment construction. PREREQUISITE: HMEC 2205.

4316. Internship in Clothing Services. (3). For teachers in areas of Occupational Clothing Services. Emphasis on utilizing knowledge and skills in clothing area in industrial setting. PREREQUISITE: All Occupational major subject matter courses must be completed previous to internship. (S/U).

4402. Advanced Nutrition. (3). In-depth study of nutrients and body utilization and discussion of current issues in nutrition. PREREQUISITES: HMEC 2202, CHEM 1111, 1112.

4406-6405. Textiles. (3). (3305). Selection, use and care of textiles related to properties of fibers, yarn structures, fabric construction, and finishes. Morphology and chemistry of fibers, finishes, dyes, fabric maintenance and procedure involved in fiber, yarn, and fabric identification.

4602-6602. Quantity Cookery and Purchasing. (3). Principles of procuring, storing, producing and serving foods in volume. Planned work experience in selected quantity food operations. PREREQUISITES: HMEC 3302, 3602.

4604-6604. Selection and Use of Textiles for Home Interiors. (2). Guides in selection, use and care of textiles for household interiors.

4505-6606. Tailoring. (3). Selection and construction of tailored wool garments, using various tailoring techniques. PREREQUISITE: HMEC 1105 and 2205.

4600. Seminar in Home Furnishing and Fashion Merchandising. (6). Concentrated study of factors influencing fashion and home furnishings merchandising; patterns of production, distribution, buying and promotion. PREREQUISITE: All major subject matter courses must be completed before the professional semester. COREQUISITE: Fashion concentration - HMEC 4705; Home Furnishings concentration - HMEC 4804.

4602-6602. Community Nutrition. (3). Nutritional problems and practices of various ethnic, age and socio-economic groups. Community and agencies concerned with meeting these needs. PREREQUISITE: HMEC 2202 or permission of instructor.

4702-6702. Practicum in Community Nutrition. (3). Observation and participation in nutrition education programs of local and state agencies. PREREQUISITE: HMEC 4602 or permission of instructor.

4705. Fashion Merchandising Practicum.* (6). Eight (8) weeks of full-time work experience in Fashion Merchandising in approved business establishments. Students may not enroll for more than total of 12 semester hours during professional semester. *COREQUISITES: HMEC 4600. (S/U).

4802/6802. Experimental Foods. (3). Principles underlying experimental approach to study of chemistry, composition, structure, and properties of foods; effects of various ingredients in commonly prepared foods. *One lecture, four laboratory hours per week*. PREREQUISITES: HMEC 2102, CHEM 1111, 3111.

4804. Home Furnishings Merchandising Practicum.* (6). Eight weeks of full-time work experience in Home Furnishings Merchandising in approved business establishments. Students may not enroll for more than total of 12 semester hours during professional semester. COREQUISITE: HMEC 4600. (S/U).

4900-6900. Home Economics Study Tour. (1-3). On-the-scene knowledge about specific academic areas of specialization within home economics. PREREQUISITE: permission of instructor. May be repeated with 3 hours maximum credit.

M772 DISTRIBUTIVE EDUCATION (DTED)

The Department of Home Economics and Distributive Education offers a major and minor in Distributive Education to prepare teacher-coordinators for vocational marketing and distributive education programs in high schools, technical institutes and community colleges.

1111. Orientation to Distributive Education. (1). Scope of careers in distributive education (teaching marketing, merchandising and related management); educational preparation needed, professional orientation, and field observations.

2106. Visual Merchandising. (3). (4621). (Same as HMEC 2106). Theory and practice in visual merchandising (display); especially retail interior and window display techniques, display creation, planning promotions and determining budgets. *One lecture, four laboratory hours per week*.

3010. Cooperative Occupational Education. (3). (Same as VTED 3010). Study of occupational education programs which use work experience coordinated with related in-school instruction to provide career preparation in marketing, office, industry, home economics, health and other fields of employment-technical education to general education; trends in vocational-technical education.

4611-6611. Principles and Philosophy of Vocational Education. (3). (Same as VTED 4611). History, philosophy, principles and objectives of vocational education; curriculum problems; contribution of vocational-technical education to general education; trends in vocational-technical education.

4630. Materials and Methods in Distributive Education. (3). Instructional materials and techniques used in high school and post-high school marketing and distributive education classes (Fall semester only).

4641-6641. Techniques of Coordination of Cooperative Occupational Education. (3). (Same as VTED 4641). Selecting training agencies; developing of analyses; selecting and briefing training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITE: DTED 3010 or consent of instructor.

4651. Basic Problems in Distributive Education. (1-3). Independent study of current trends and problems related to marketing and distributive education; viewpoints of leaders in the field; attention to problems of students enrolled.

4680-6680. Development and Supervision of Vocational Student Organizations. (3). Aims and objectives of vocational student organizations and their value in occupational preparation; their development, curricular integration, operation and evaluation.

4690-6690. Workshop in Distributive Education. (1-9). Group study of selected phases of distributive education program; to assist both in-service and prospective distributive education teacher-coordinators in improvement of teaching-learning processes contained in three phases of program operation: classroom instruction, on-the-job training and youth organization advisement. May be repeated when topic varies. (S/U).

4700-6700. Distributive Education Study Tour. (1-3). Opportunity to gain on-the-scene knowledge about specific areas of instruction within marketing and distributive education. May be repeated; however, student should consult with major advisor to determine maximum credit which may be applied to degree program. PREREQUISITE: permission of instructor.

SPECIAL EDUCATION AND REHABILITATION

PROFESSOR ROBERT M. ANDERSON,
PROFESSOR WILSON L. DIETRICH,
Interim Chairmen

Room 100, The Special Education Building

The Department of Special Education and Rehabilitation offers a major and minor in Special Education and a major in Rehabilitation Education.

M790 SPECIAL EDUCATION (SPER)

2000. Introduction to Exceptional Children. (3). Overview of field of special education, including historical perspective of the field, characteristics and education of children and youth in each area of exceptionality.

3002. Independent Study in Special Education. (1-6). Opportunity for self-directed study and/or research under supervision. PREREQUISITE: consent of department.

3004. Selected Topics in Special Education and Rehabilitation. (1-3). Investigation in selected area(s) of special education and rehabilitation. May be repeated with change of topic.

3012. Methods, Materials, and Curriculum for Mildly Handicapped Learners. (3). Curriculum, methods and materials applicable to the special educational needs of mildly handicapped children who are mentally retarded, learning disabled and/or emotionally disturbed in primary, intermediate and secondary levels; emphasis on applied programming techniques and implementation of remedial procedures in special education settings. CO/PREREQUISITES: *

3013. Practical Application of Special Education Methods and Materials I. (3). Planning and implementation of special education methods and materials with mildly handicapped learners. CO/PREREQUISITES: *

3014. Assessment of Exceptional Persons. (3). Tests and measurements used with exceptional persons, including psychological, social and other assessment instruments used in educational and vocational evaluation of exceptional persons. CO/PREREQUISITES: *

3015. Behavior Management for Exceptional Students. (3). Advanced strategies for managing social behaviors of moderately and severely handicapped learners. Techniques for eliminating maladaptive behaviors, managing aggressive and antisocial students, and teaching appropriate social skills. CO/PREREQUISITES: *

*SPER 3012, 3103, 3104, and 3015 must be taken as corequisites. The prerequisites for this sequence are SPER 2000 and ELED 3251, 4242.

3201. Introduction to Children with Emotional Problems. (4). Historical developments and current practices in identification and treatment of children with emotional problems. Emphasis on educational phase of treatment, including characteristics of children, role of teacher, and curricula planning. Practicum with emotionally disturbed children included. PREREQUISITE: SPER 2000.

3401. Introduction to Children with Learning Disabilities. (4). Historical developments and current practices in identification and treatment of children with learning disabilities. Emphasis on diagnosis, management, and education of children with learning disabilities; and relationship of these concepts to academic failure. Practicum with learning disabled children included. PREREQUISITE: SPER 2000.

3601. Nature of Mental Retardation. (4). Historical developments and current practices in identification and treatment of mentally retarded children. Multiplicity of implications of mental retardation as they relate to impairment in growth, maturation, and learning. Practicum with mentally retarded children included. PREREQUISITE: SPER 2000.

3516. Programming for Trainable Mentally Retarded Children. (3). Diagnosis, classification, development of teaching materials and techniques, and interaction with trainable mentally retarded learners. PREREQUISITE: SPER 2000.

3901. Introduction to Disabling Conditions and Their Helping Professions. (3). Physical, mental and socially disabling conditions and their effect on lives of handicapped and their families. Roles of various helping professions in rehabilitation of such conditions.

3911. Introduction to Vocational Evaluation of the Disabled/Handicapped Citizen. (3). Historical, philosophical and theoretical bases and present status of vocational evaluation. Survey of vocational evaluation process, principles, techniques and procedures, innovative methodologies and future trends.

3912. Introduction to Work Adjustment of the Disabled/Handicapped Citizen. (3). Historical and philosophical perspective of treatment process of work adjustment. Emphasis on adjustment of handicapped individual to work, personal, and social situations and techniques to enhance adjustment process.

4002. Trends and Issues in Special Education. (3). Current trends and issues such as mainstreaming, law and the handicapped citizen, working with parents of handicapped and knowledge of available services for handicapped and their families.

4012. Methods and Curricular Adaptations for Physically Impaired and Gifted Learners. (3). Two-module course; respective methods and curricular adaptations needed by physically impaired and gifted learners in school settings. COREQUISITE: SPER 4013. PREREQUISITE: SPER 3015.

4013. Practical Application of Special Education Methods and Materials II. (3). Planning and implementation of special

education methods and materials; one-half semester with physically impaired; one-half semester with gifted learners. COREQUISITE: SPER 4012. PREREQUISITE: SPER 3015.

4801. Workshop in Special Education and Rehabilitation. (1-9). For the professional in fields of special education and rehabilitation. Intensive study of current methodologies, research, issues and trends in various areas of exceptionality and disability. See *Schedule of Classes* for specific topic. May be repeated when topic varies. (S/U).

4902. Social and Psychological Adjustments to Disabling Conditions. (3). Social and psychological ramifications of disabling conditions. Theories dealing with adjustment to physical disabilities explored and extrapolated to mental and social disabilities.

4903. Helping and Human Relationships with Disabled Persons. (3). Focus on examining theories of human behavior and helping process as it relates to working with disabled persons. Theories of Combs, Carkhuff and others.

4904. Instructional Methods in Rehabilitation. (3). Theoretical background and practical application in vocational evaluation, vocational exploration, and teaching job skills.

4905. Utilizing Client Information in Rehabilitation. (3). Use of biographical, psychological, medical and job information for case planning.

4913. Diagnostic Vocational Evaluation for the Disabled/Handicapped Citizen. (3). In-depth study of processes, principles and techniques used to diagnose general assets and limitations of handicapped/disabled individual. Emphasis on use of biographical or referral data, evaluation interview and rationale underlying selection and use of psychological tests. PREREQUISITE: consent of instructor.

4914. Prognostic Vocational Evaluation for the Disabled/Handicapped Citizen. (3). Processes, principles and techniques used to determine and predict work behavior and vocational potential of handicapped/disabled individual. Selection and use of appropriate occupational exploration

programs, work samples, situational tasks, simulated work experience and on the job tryouts. PREREQUISITE: SPER 4913 or consent of instructor.

4915. Prescriptive Vocational Evaluation for the Disabled/Handicapped Citizen. (3). Techniques of synthesizing information gained in SPER 4913, 4914. Interpretation of data through formal staff conference, vocational counseling and follow-up procedures. PREREQUISITE: SPER 4913 and SPER 4914 or consent of instructor.

4916. Work Sample Development for the Disabled/Handicapped Citizen. (3). Development, standardization and validation of work samples. Techniques of job analysis and community surveys and completion of a work sample based on local labor market survey. PREREQUISITE: consent of instructor.

4941. Practicum in Rehabilitation. (3-6). Practical experiences in various rehabilitation settings. (S/U). PREREQUISITE: SPER 3901 or consent of instructor.

THE HERFF COLLEGE OF ENGINEERING

Q840 ENGINEERING CORE COURSES (ENGR)

1006. Introduction to Engineering. (3). Engineering process from problem formulation to creative design; numerical and graphical methods; computing devices in engineering practice; computer programming; professional ethics. *Three lecture hours per week.*

1021. Engineering Graphics (2). Role of graphical communication in engineering practice; sketching and drafting techniques used in design, elements of descriptive geometry. *One lecture/three laboratory hours per week.*

CIVIL ENGINEERING

PROFESSOR JOHN W. SMITH, P.E., *Chairman*
Room 104A, Engineering Building

Q800 CIVIL ENGINEERING (CIVL)

1107. Civil Engineering Computation. (3). Continuation of ENGR 1006 with emphasis on computer solutions of civil engineering problems. *Three lecture hours per week.* PREREQUISITE: ENGR 1006.

2111. Engineering Surveying. (3). (3111). Principles of field measurements; earthwork calculations; alignment of curves; error analysis. *Two lectures, three laboratory hours per week.* PREREQUISITES: ENGR 1021, CIVL 1107, MATH 2321.

2131. Statics. (3). Analysis of two and three dimensional force systems; centroids and moments of inertia; friction. *Three lecture hours per week.* PREREQUISITE: PHYS 2511, MATH 2321.

3101. Computer Methods in Civil Engineering. (3). Civil engineering applications of fundamental methods of numerical analysis; advanced programming techniques. *Three lecture hours per week.* PREREQUISITES: CIVL 1107, MATH 3391.

3102. Civil Engineering Analysis. (3). Probabilistic considerations in the design and analysis of civil engineering systems; integration of basic probability laws and statistical distributions with physical laws relating to civil engineering practice; treatment of uncertainty in the modeling of engineering systems. *Three lecture hours per week.* PREREQUISITE: CIVL 3101.

3121. Structural Analysis I. (3). Analysis of statically determinate structures; reactions, shear, and moment; truss analysis; influence lines and moving loads. *Three lecture hours per week.* PREREQUISITE: CIVL 2131.

3122. Structural Analysis II. (3). Analytical and numerical solutions for statically indeterminate structures. *Three lecture hours per week.* PREREQUISITES: CIVL 3121, MECH 3322.

3131. Design of Steel Structures. (3). Current design concepts for structural steel members and their connections. *Three lecture hours per week.* PREREQUISITES: CIVL 3121, MECH 3322.

3136. Properties of Concrete. (3). Properties of aggregates and portland cement; mix design; testing of plain concrete, properties of hardened concrete; quality control parameters. *Two lecture, three laboratory hours per week.* COREQUISITE: MECH 3322.

3136. Bituminous Materials Engineering. (3). Source, manufacture, processing, types, constituents, tests, chemical behavior, specifications and uses of bituminous materials and aggregates in pavement mix design and construction. *Two lecture, three laboratory hours per week.* PREREQUISITE: MECH 3322.

3161. Transportation Systems Engineering. (3). (4161) Development and function of transportation systems; operational control and characteristics; system coordination, traffic flow and patterns. *Three lecture hours per week.* PREREQUISITE: CIVL 1107, MECH 2322, MATH 2322.

4111. Engineering Economics. (3). (3141). Application of economics and decision theory to engineering alternatives in planning, developing, constructing, and managing engineering projects. *Three lecture hours per week.* PREREQUISITE: Senior Standing.

4131-6131. Intermediate Steel Design. (3). Design of plate girders and composite beams; moment connections; current code provisions. *Three lecture hours per week.* PREREQUISITE: CIVL 3131, 3122.

4135. Reinforced Concrete Design. (3). Strength analysis and design of reinforced concrete members; floor systems; current code provisions. *Three lecture hours per week.* PREREQUISITE: CIVL 3122.

4136-6136. Intermediate Reinforced Concrete Design. (3). Design of two-way slab systems; column design including length effects; current code provisions. *Three lecture hours per week.* PREREQUISITE: CIVL 4135.

4141. Water and Wastewater Engineering. (4). Water and wastewater treatment fundamentals; water quality and treatment; physical, chemical, and biological treatment of wastewaters; design of water and wastewater treatment units; solid waste management; computer application in design. *Three lecture, three laboratory hours per week.* PREREQUISITE: MECH 3331.

4143-6143. Environmental Engineering I. (3). Basic physical chemical treatment concepts for water and wastewater with laboratory demonstration of laboratory studies. *Two lecture/three laboratory hours per week.* PREREQUISITE: CIVL 4141.

4144. Environmental Engineering II. (3). Basic biological treatment concepts for wastewater with laboratory demonstration of unit operations as well as derivation of design data through laboratory studies. *Two lecture/three laboratory hours per week.* PREREQUISITE: CIVL 4141.

4148. Hydraulics and Hydrology. (4). Quantification of precipitation and runoff, flood routing, open channel flow, culvert and sewer design, pipe network distribution systems, pumps and groundwater hydrology. *Three lecture, three laboratory hours per week.* PREREQUISITE: MECH 3331.

4151. Soil Mechanics. (4). Properties of soil and rock, including identification and classification, hydraulic properties, consolidation characteristics, and stress deformation-strength relationships. *Three lecture, three laboratory hours per week.* PREREQUISITES: MECH 3322.

4152. Applied Soil Mechanics. (3). Subsurface exploration, foundation types, foundation construction, selection of foundation type and basis of design, earth retaining structures, and slope stability. *Three lecture hours per week.* PREREQUISITE: CIVL 4151.

4162-6162. Traffic Engineering. (4). Traits and behavior patterns of road users and their vehicles. Includes traffic signs and signals, pavement markings, hazard delineation, capacity, accidents and parking analysis. *Three lecture, three laboratory hours per week.* PREREQUISITE: CIVL 3161.

4164-6164. Route Location and Design. (3). Elements of route location and design; emphasis on horizontal and vertical alignment, curvature, gradient and sight distance. *Two lecture, three laboratory hours per week.* PREREQUISITE: CIVL 2111, 3161.

4171. Construction Engineering I. (3). Planning, estimating, and bidding of heavy construction projects, development and use of scheduling algorithms for control of construction

projects; linear programming and other optimization techniques and their application to resource allocation and bidding strategy. *Three lecture hours per week.* COREQUISITE: CIVL 3141.

4172. Construction Engineering II. (3). Selection of equipment for heavy construction projects; cost analysis, productivity, procedures and safety aspects of construction operations; emphasis on heavy construction project synthesis. *Two lecture, three laboratory hours per week.* PREREQUISITE: CIVL 4171.

4173. Construction Contracts and Specifications. (3). Principles of contract law as applied to heavy construction engineering; legal problems in preparing and administering construction contracts; varieties of construction contracts; specification organization and interpretation; engineer-client relationships. *Three lecture hours per week.* PREREQUISITE: consent of instructor.

4174. Quality Control in Heavy Construction. (3). Development of quality control systems for heavy construction industry; quantitative and statistical techniques for establishing contract compliance; quality assurance sampling, testing, and additional construction control techniques. *Three lecture hours per week.* PREREQUISITE: consent of instructor.

4191. Civil Engineering Projects. (1-3). Independent investigation of a Civil Engineering problem in consultation with instructor. PREREQUISITE: consent of instructor.

4199. Civil Engineering Design. (3). Design of a civil engineering system. Establishment of design objectives and criteria; synthesis and computer assisted analysis of alternatives; selection of optimum system design; preparation of detailed system descriptions including design sketches and engineering drawings and reports. *Two lecture, three laboratory hours per week.* PREREQUISITE: CQMM Elective, senior standing, consent of instructor.

ELECTRICAL ENGINEERING

PROFESSOR CARL E. HALFORD, P.E.,
Chairman
Room 206B, Engineering Building

Q820 ELECTRICAL ENGINEERING (ELEC)

1207. Electrical Engineering Computation. (3). Continuation of ENGR 1006 emphasizing structured solutions to electrical engineering problems through use of computers. PREREQUISITE: ENGR 1006.

2201. Circuit Analysis I. (3). Fundamental properties of electrical circuits; basic concepts and circuit elements; analysis methods and network theorems; sinusoidal steady-state response of single and three-phase circuits. COREQUISITE: ELEC 2203. PREREQUISITE: MATH 2322.

2203. Circuit Analysis Laboratory. (1). Introduction to utilization of meters, oscilloscopes, oscillators, power supplies and related test equipment in experimental verification of basic electric circuit theory. *Three laboratory hours per week.* COREQUISITE: ELEC 2201.

2222. Digital Circuit Design. (4). Review of number systems and base conversions. Analysis and design of digital circuits. Logic and sequential design. Introduction to microprocessors. *Three lecture, three laboratory hours per week.* PREREQUISITE: ENGR 1006.

3201. Circuit Analysis II. (4). Transient analysis of RLC networks. Complex frequency concepts. Ideal transformers and magnetic coupling. Two port networks and network synthesis. *Three lecture, three laboratory hours per week.* PREREQUISITE: ELEC 2201

3202. Transform Methods in Network Analysis. (3). Introduction to transform theory; application of Fourier, Laplace and Z-transforms to solution of network problems. PREREQUISITE: ELEC 2201.

3211. Electronics I. (3). Solid state devices as elements of electric circuits; linear models and linear operation of these devices emphasized. PREREQUISITE: ELEC 2201, 2203.

3212. Electronics II. (4). Power amplifiers, frequency response, feedback amplifiers, oscillators, difference amplifiers, operational amplifiers. *Three lecture, three laboratory hours per week.* PREREQUISITE: ELEC 3211, 3213.

3213. Electronics I Laboratory. (1). Emphasis on laboratory techniques in performance of basic electronic experiments. COREQUISITE: ELEC 3211

3220. Engineering Computer Systems. (3). Structure and organization of digital computers and associated peripheral devices. Digital representation of data, basic instruction sets, instruction execution and addressing techniques. Subroutines and utility programs, systems programs, and other software oriented toward computer-controlled systems. PREREQUISITE: ELEC 2222.

3221. Matrix Computer Methods in Electrical Engineering. (3). Fundamentals of matrix theory; application of matrix theory and digital computer techniques to the solution of circuit problems. State equations and their application to the solution of systems of differential equations. COREQUISITE: ELEC 3201.

3240. Electromagnetic Field Theory I. (3). (4211). Maxwell's equations electrostatics, magnetostatics and time varying electromagnetic fields. PREREQUISITE: MATH 3391.

4201. Energy Conversion. (3). Energy conversion by electromechanical processes, energy relations in magnetic systems, mathematical modeling of magnetic systems, transformers and electrical machines. PREREQUISITE: ELEC 2201.

4202-6202. Electrical Power Systems. (3). Investigation of problems associated with transmission of electrical energy. Load-flow studies, and fault analysis by use of symmetrical components. PREREQUISITE: ELEC 3221.

4203. Energy Conversion Laboratory. (1). Fundamental properties associated with testing and utilization of direct current and of alternating current equipment such as motors, generators, alternators and transformers. COREQUISITE: ELEC 4201.

4212-6212. Electromagnetic Field Theory II. (4). Plane, cylindrical and spherical waves; high frequency transmission lines; introduction to microwave and antenna theory. *Three lecture, three laboratory hours per week.* PREREQUISITE: ELEC 3240

4213-6213. Antenna Theory and Design. (4). Theory of operation and design of antennas. Determination of antenna radiation characteristics. Introduction to antenna array theory. *Three lecture, three laboratory hours per week.* PREREQUISITE: ELEC 3240

4221-6221. Pulse and Digital Circuits. (4). Timing, scanning, trigger and pulse circuits, astable, bistable and monostable multivibrators; binary counting circuits. *Three lecture, three laboratory hours per week.* PREREQUISITES: ELEC 3211, 2222.

4223. Introduction to Engineering Instrumentation. (4). (3222). Transducers for physical systems. Mechanical, temperature, acoustic, and biomedical transducers. Methods of processing and analyzing data. *Three lecture, three laboratory hours per week.* PREREQUISITE: ELEC 3212.

4230-6230. Data Communication Systems. (3). Data communications in information and computing systems. Analog and digital means of transmitting and controlling information. Organization and requirements of data communication systems including modulation and demodulation, multiplexing, switching, error detection and correction. On and Off line, real and non-real-time, and time sharing systems. PREREQUISITE: ELEC 3202.

4231-6231. Communication Theory. (3). Frequency and time domain. Modulation, random signal theory, autocorrelation, basic information theory, noise, communication systems. PREREQUISITE: ELEC 3202.

4232-6232. Discrete Signal Processing. (3). Introduction to deterministic and random discrete time signal analysis. Includes signal time averaging, digital filtering, spectral analysis, and detection and estimation of signals. Applications to computer processing biomedical, seismic, and radar signals. PREREQUISITE: ELEC 3202.

4240-6240. Introduction to Quantum Electronics. (3). Quantum concepts, Schrodinger equation, quantization of electromagnetic radiation. Laser theory and application. PREREQUISITE: ELEC 3240.

4241-6241. Solid State Physical Electronics. (3). Quantum concepts; statistics; crystal structure, conduction processes in solids; p-n junctions and devices; field-effect devices; charge transfer devices. PREREQUISITE: ELEC 3211, 3240.

4242-6242. Electro-Optical Systems. (3). Principles of radiometry and the engineering aspects of electro-optical devices such as lasers, trackers, FLIRs, infrared sources and detectors. Video techniques for display and analysis. PREREQUISITE: ELEC 3202.

4251-6251. Control System Engineering. (4). General equations of physical linear systems and their transfer functions. Transient analysis and stability of servo systems. The Bode plot, Nichols chart, Nyquist plot, Routh-Hurwitz criterion, root locus methods, introduction to compensation techniques and systems in state space. *Three lecture, three laboratory hours per week.* PREREQUISITES: ELEC 3202, 3221.

4255-6255. Introduction to Robotics. (3). Review and application of kinematics, control systems and microprocessors to robot manipulators. PREREQUISITE: Senior standing in Electrical Engineering or permission.

4256-6256. Robotics Laboratory. (1). Laboratory application of control techniques for robotic manipulators. *Three laboratory hours per week.* COREQUISITE: ELEC 4255-6255

4261-6261. Introduction to Network Synthesis. (3). Synthesis of canonical LC, RL, RC, and RLC driving point impedances. Synthesis and realization of lossy one and two port networks. PREREQUISITE: ELEC 3202.

4270-6270. Introduction to Microprocessors. (3). LSI circuitry, microprocessor architecture, hardware and software, application and system design. PREREQUISITE: ELEC 2222

4271-6271. Microcomputer Techniques. (3). Use of high level languages in microcomputer system design. Introduction to popular 16-bit machines. PREREQUISITES: ELEC 4270 or 3220.

4273-6273. Microprocessor System Design. (1). Design of microprocessor based systems. *Three laboratory hours per week.* PREREQUISITE: ELEC 4270.

4280. Electrical Engineering Design. (3). Individual and/or team design projects which require creative application of electrical engineering concepts. Oral and written presentations required. PREREQUISITE: Senior standing.

4991. Electrical Engineering Projects I. (1-3). Independent investigation of problem selected in consultation with instructor; report required. PREREQUISITE: senior standing.

4992. Electrical Engineering Projects II. (1-3). Design, construction and testing of project investigated in ELEC 4991; report required. PREREQUISITE: ELEC 4991.

ENGINEERING TECHNOLOGY

PROFESSOR W. T. BROOKS, *Chairman*

Room 203, Technology Building

Q890 ARCHITECTURAL TECHNOLOGY (TECH)

1555. History of Architecture. (3). Major trends in architecture from prehistoric times to present. Emphasis on impact of technological and social changes on prevailing architectural styles.

2555. Architectural Design I. (4). Fundamentals of architectural design, basic techniques of drafting, perspectives, presentation and working drawings. *Three lecture, three laboratory hours per week.*

2556. Site and Environmental Planning. (3). Building sites; selection and utilization, including environmental influences. Technical aspects such as zoning, contour lines, parking, ingress/egress, site drainage, building location and landscaping. *Two lecture, two laboratory hours per week.* PREREQUISITE: TECH 2555.

2561. Building and Construction Systems. (3). Comprehensive study of building types and building systems as they relate to architectural technology. PREREQUISITE: TECH 2555.

3471. Structural Design I. (3). Fundamentals of structural design and analysis of steel and timber buildings and building components. PREREQUISITES: MATH 1321, TECH 3401.

3472. Structural Design II. (3). Fundamentals of structural design and analysis of concrete buildings and building components. PREREQUISITES: MATH 1321, TECH 3401.

3520. Architectural Design II. (4). Basic design concepts and methods as applied to building types, design, construction, and systems for units of contemporary architecture. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2555, 3471.

3521. Architectural Model Making. (3). Pictorial representations, model building and furnishings design. PREREQUISITE: TECH 2555 or permission of instructor.

3531. Mechanical Equipment in Construction. (3). Studies in environmental technologies in architecture; mechanical systems, plumbing, electrical and energy conservation. PREREQUISITE: junior standing in Technology or permission of instructor.

4515. Architectural Design III. (4). Design concepts and methods as related to mass horizontal and vertical architectural development. *Three lecture, three laboratory hours per week.* PREREQUISITES: TECH 3520, 3471, 3472.

4525-6525. Building Codes and Regulations. (3). Codes and regulations, in general, that influence the design and construction of buildings. Specific study of the local building code and regulations that influence building construction. PREREQUISITE: TECH 2561 or permission of instructor.

4530-6530. Architectural Specifications and Contracts. (3). Examination of typical contract documents beginning with agreement between architect and owner and continuing through construction. Emphasis on roles and responsibilities of each party. CSI format for specifications, including proper organization, writing and utilization of complete set of specifications. PREREQUISITE: TECH 3520.

4615. Architectural Design IV. (5). Architectural Schematics and Design presentation. Design presentation concepts as applied in architectural practice, municipal planning and related city and urban design and development. Techniques and philosophies of schematic and oral presentations. Field trips to architectural and community planning offices. *Three lecture, four laboratory hours per week.* PREREQUISITE: TECH 4515.

Q890 COMPUTER SYSTEMS TECHNOLOGY (TECH)

2251. Advanced Programming Techniques. (4). Modeling techniques applicable to engineering technology. Subprograms tape input/output, random-access storage devices, complex arithmetic, and double precision operations emphasized. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 1010.

2261. Data Structures. (4). (3251) Application of high speed digital computer to problems associated with storage and

retrieval of numeric and non-numeric data in engineering systems. Includes representation and organization for storing of data, searching and sorting techniques, decision tables, and file maintenance techniques. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2251 or equivalent.

3231. Computer Technology I. (3). Introduction to digital and analog computer hardware relating to computing circuits and systems; numbers systems, switching and logic circuits, storage devices; input and output devices, principles of program control. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 2821.

3232. Computer Technology II. (3). Introduction to internal computer organization and configuration design; component and device characteristics; data representation, transfer and storage; Boolean algebra; combinational logic. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 3231.

3271. Computer Simulation Technology I. (4). Languages designed for simulation of physical systems. Includes general purpose languages, as well as languages designed for electronics and construction technology. Laboratory consists of application of analog, digital and hybrid computers to simulate large scale systems. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2261, TECH 2944.

4241-6241. Computer Simulation Technology II. (4). Advanced simulation methods with particular emphasis on simulators using a dedicated computer. Problems and limitations of real-time simulations typical to aerospace and nuclear industries. Special and advanced techniques for business and industrial applications. PREREQUISITE: TECH 3271 or permission of instructor.

4251-6251. Assembly Language Programming. (4). Investigation of a particular mini-computer from programmer's viewpoint. Includes machine representation of data, instruction formats, machine operation and addressing techniques, input/output, and interrupts. Applications include use of minicomputers for numerical control and in sensor based systems. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2261, TECH 3232.

4261. Computer Applications in Technology. (4). Applications of problem oriented and procedure oriented languages to problems from selected areas of engineering technology. Includes data collecting, modeling techniques, constraints, program development and validation. Areas of emphasis may vary to meet student needs. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2251 or permission of instructor.

4271-6271. Computer Techniques. (4). Advanced computer techniques in industry. Includes APT programming for NC machine tools, application of computer to solve PERT networks and applications in production planning and control. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 2251.

4233-6233. Digital Systems in Technology. (4). Industrial and commercial applications of microcomputers and microprocessors; theory of operation of MSI and LSI logical devices, memory and input/output devices; techniques of microprogramming, testing and maintenance. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 3232.

4234-6234. Microprocessor Interfacing Techniques. (4). Application of microprocessors to equipment, emphasis on interface problems. Techniques employing conventional logic devices as well as LSI components. Testing and maintenance techniques of equipment using microprocessor based design. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 4233

Q890 CONSTRUCTION TECHNOLOGY (TECH)

1451. Introduction to Surveying. (3). Surveying practices, calculations, and use of topographical conventions. *Two lecture, three laboratory hours per week.* PREREQUISITES: MATH 1213 and MATH 1212.

3412. Soil Technology in Construction. (3). Soil technology as applied to construction field. Fundamental properties of soils with application to foundations, highways, retaining walls and slope stability. Relationship between soil characteristic and geologic formations. *Two lecture, three laboratory hours per week.* PREREQUISITE: junior standing or approval of instructor.

3414. Construction Administration. (3). Ethical practice, social responsibility, licensing, codes, and public regulation of contracting, specification writing and interpretation, functions of architect-engineer and owner, construction contracts, bonding, insurance, indemnification, labor agreements and jurisdictional procedures, joint venture and subcontract relationship. PREREQUISITE: junior standing.

3451. Construction Surveying Methods. (3). Methods, techniques and formulas necessary to establish controlling points at any construction site. Both office and field procedures required to locate centerlines and bounds of structures. PREREQUISITE: TECH 1451.

3491. Estimating. (3). Study and practice of specifications, bidding procedures, and estimating. PREREQUISITE: TECH 2555.

3591. Land Surveying. (3). Historical background of property surveys. Writing adequate land descriptions. Interpretation of old descriptions. Excess and deficiency. Riparian rights. Field practice. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1451.

4510. Construction Planning and Scheduling. (3). Principles of planning scheduling, organizing, and controlling construction projects. Studies in critical path method (CPM) and PERT, with resource leveling and financial scheduling. Computer applications in CPM and PERT emphasized. *Two lecture, three laboratory hours per week.* PREREQUISITE: senior standing or approval of instructor.

4520. Construction Methods and Equipment. (3). Theory and practice of construction operations, equipment utilization, construction methods, analysis of costs, crew and equipment. PREREQUISITE: senior standing or approval of instructor.

4522-6522. Construction Logistics. (3). Theory and practice of construction project bidding using statistical concepts of probability and computer applications. Office procedures, job and cost control, and analysis of starting and completing construction contracts.

Q890 ELECTRONICS TECHNOLOGY (TECH)

1811. Electronics Technology I. (3). (Same as CMUS 1811). Introduction to fundamental electrical and electronic theory and devices, circuit and network theorems, laboratory emphasis on basic electrical measurements and proper use of instruments. *Two lecture, three laboratory hours per week.* PREREQUISITE: MATH 1213

1821. Electronics Technology II. (3). Circuit analysis methods in modern electronics technology. Laboratory confirmation of mathematical solutions to problems involving Direct and Alternating Currents. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1811.

1841. Residential and Industrial Electricity. (3). Electrical materials, devices, procedures, and regulations involving the control and distribution of electrical power in private and commercial facilities.

2821. Electronics Technology III. (3). Theory of solid-state devices and electron tubes with applications in power supplies, amplifiers and other basic electronic circuits. Solid-State diodes, bipolar junction transistors, and field effect transistors emphasized. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1811. COREQUISITE: TECH 1821

2831. Electronics Technology IV. (3). Theory of semiconductor devices and their applications in multistage circuits, sinusoidal and nonsinusoidal oscillators, and other fundamental electronic circuits. Both discrete components and integrated circuits; emphasis on integrated circuits. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 2821.

3801. Electrical Generation and Transmission. (3). Basic concepts of generation and transmission of electrical power. Emphasis is on applications to the electrical utility industry. PREREQUISITE: PHYS 2313 or equivalent. Course established for and limited to students enrolled in Nuclear Studies courses

3811. Electronics Communications. (3). Principles of modulation and demodulation, in depth, together with associated radio transmitter and receiver circuitry, telephone applications and electronic navigational aids. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 2831.

3821. Industrial Electronics. (3). Electronic circuits and systems in modern industry. Theory and industrial applications of devices such as gas and vacuum tubes, unijunction transistors, silicon controlled rectifiers, diacs, triacs, optoelectronics, and synchros. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 2831.

3822. Control Instrumentation. (4). Theory of application of automatic control equipment, principles, operations and construction of pneumatic hydraulic, electrical, and automatic ratio controllers. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 3821 or permission of instructor

3841. Advanced Applied Electricity. (3). Generation and utilization of single and polyphase electrical power in home and industry. DC and AC generators, motors, regulators and meters in both individual and systems applications. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1821

4801. Antenna Technology. (4). Detailed examination of transmission lines and antennas, using applications approach with minimum of purely mathematical analysis; applications in both wire and wireless systems. *Three lecture, three laboratory hours per week.* PREREQUISITE: TECH 4821.

4811. Advanced Electronic Communications Technology. (3). Concepts, systems and practical applications in generation, transmission and detection of aural, data and visual information in analog and digital form. PREREQUISITES: TECH 4821 and 4233.

4821. Microwave Technology. (4). Generation and transmission of energy at frequencies above 300 megahertz, emphasizing techniques and equipment which contrast sharply with those at lower frequencies. *Three lecture, three laboratory hours per week.* PREREQUISITES: TECH 4801

4841. Video Communications. (3). Theory and application of technical equipment for generation, transmission, and reception of video signals, both closed circuit and broadcast. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 3811

Q890 MANUFACTURING TECHNOLOGY (TECH)

1511. Graphics. (3). Introduction to graphic representation and presentation. Basic exercise in lettering, use of instruments, sketching, geometric construction and projections; however, problem solving stressed. *Two lecture, three laboratory hours per week.*

1611. Introduction to Forest Products Technology. (3). Lecture and related laboratory activities employed to study fundamental concepts of wood utilization, wood fabrication, operations of woodworking machines, adhesive technology, wood lamination, bending wood anatomy, wood finishing, and the organization of forest products and industries. *Two lecture, three laboratory hours per week.*

1711. Manufacturing Processes I. (3). Introduction to manufacturing processes and machine tool technology used to shape materials into useful products. Laboratory exercises include lathe operations, computerized numerical control milling, electrical discharge machining, non-traditional machining, and computer aided design. *Two lecture, three laboratory hours per week.*

2511. Descriptive Geometry. (3). Points, lines and planes in space; emphasis on application to problems of technological nature. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1511.

3386. Occupational Safety. (3). (3387). Hazards and safety procedures for general industry and construction.

3410. Plastic Properties and Processes. (3). Classification and properties of basic groups of plastics and industrial processes and techniques used in transforming raw materials into usable products. *Two lecture, three laboratory hours per week.* PREREQUISITE: CHEM 1051.

3421. Manufacturing Processes II. (3). Processes and techniques used to shape materials into useful products. Techniques include cutting, molding, stamping, extruding and power metallurgy. Major emphasis in the areas of principles and applications of numerical controls. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1711 and TECH 2251.

3573. Dynamics and Mechanical Design. (3). Basic consideration of kinematics, linkages, mechanisms and their relation to dynamic properties such as force, mass and acceleration. PREREQUISITES: TECH 2944, 3400.

3601. Light Frame Building Construction. (3). Contemporary light frame building construction; emphasis on estimating, building materials, and building systems.

3611. Industrial Wood Processing. (3). Lecture and related laboratory activities to study wood product mass production; with emphasis on wood product design, process engineering, wood related materials, wood substitutes, and industrial finishing materials and systems. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1611

3718. Welding and Metallurgy. (3). (3731). Properties of metals; emphasis on physical and mechanical properties related to welding, cold and hot working, heat treating and testing. *Three lecture, two laboratory hours per week.*

4460-6460. Motion and Tim Analysis. (3). Methods improvement, motion economy, and development of time standard by direct observation, predetermined time standards, and synthesis.

4462-6462. Statistical and Quality Control. (3). Statistical methods for analyzing quality problems, include control charts for variables and attributes; single, double and multiple lot-by-lot acceptance sampling plans; and computer applications to quality assurance.

4464-6464. Production Control. (3). Planning and control of production; emphasis on intermittent and continuous manufacturing. Fields of study include forecasting, designing control forms, using visual controls, scheduling, dispatching, pre-planning, and using critical path techniques.

4466-6466. Plant Layout. (3). Designing a plant with respect to material handling, machine location, auxiliary services, capital requirements, safety, and personnel organization.

4470-6470. Human Performance in Manufacturing. (3). Man-machine environment systems; man's anatomical, physiological and psychological capabilities and limitations related to work and workplace. Application through lab experiences and plant visits. *Two lecture, three laboratory hours per week.*

4472. Computer Aided Design. (3). Overview of computer aided design (CAD) technology, underlying principles, integrated systems philosophy, disciplinary and industrial applications, hardware and software principles, management and human aspects, benefit. PREREQUISITE: senior standing or permission of instructor.

4474. Computer Aided Manufacturing. (3). Use of computers in manufacturing including product, instrumentation and process environments. Hardware and software fundamentals. Survey of numbering systems and digital electronics. Emphasis on applications and management aspects of computer aided manufacturing systems. *Two lecture, three laboratory hours per week.* PREREQUISITE: senior standing or permission of instructor.

4476. Automation and Robotics. (3). Capabilities and applications of programmable logic controllers; computers and robots in automated systems. *Two lecture, three laboratory hours per week.* PREREQUISITE: senior standing or permission of instructor.

4571. Machine and Tool Design. (3). (4591). Study and application of basic machine elements in assemblies. Layout of fixtures, jigs and dies for production tooling. *Two lecture, three laboratory hours per week.* PREREQUISITES: TECH 2511 and 3401.

4950-6950. Product Safety Management. (3). (3921, 3931). Study of modern concepts of accident prevention by means of safety analysis. Analyses of responsibilities and requirements of management in producing safe consumer products. Emphasis on electrical and mechanical hazards.

Q890 SUPPORTING COURSES (TECH)

1010. Introduction to Computer Usage. (3). Instruction on how computers operate. Methods of communicating with computers through input and output devices. Elementary and familiar calculations programmed in BASIC. Hands-on operational experience with remote terminal equipment. *Two lecture, three laboratory hours per week.* PREREQUISITE: High School Mathematics.

1411. Introduction to Technology. (1). Emphasis on engineering technology programs as to content and opportunities upon graduation; technical applications, calculations and activities related to various technological disciplines; approaches to basic research techniques and problem solving.

2411. Introduction to Instrumentation. (3). Basic mechanical and electrical instruments used in measurement of temperature, pressure, and flow. PREREQUISITE: Course established for and limited to students enrolled in nuclear studies programs.

2944. Analysis for Engineering Technology. (4). Application of mathematical, scientific, and engineering principles to solution of technology problems, using a variety of examples from various major areas in Technology. Students analyze and provide acceptable solutions to ascending order of well designed problems using language and techniques or related technological disciplines and selected areas of mathematics, such as algebra, trigonometry, calculus, and differential equations. *Three lecture, three laboratory hours per week.* PREREQUISITE: MATH 1321.

3262. Computer Applications in Nuclear Power. (3). Specialized course in applications of computer technology within the nuclear power generation system. Includes overview of digital logic and hardware, programming fundamentals and nuclear applications. PREREQUISITE: course established for and limited to students enrolled in nuclear studies programs.

3350. Fluid Power. (3). Fundamental principles of hydraulic and pneumatic systems; emphasis on fluid instrumentation, control, and measurement. *Two lecture, three laboratory hours per week.* PREREQUISITE: MATH 1213.

3400. Forces and Force Systems. (3). Force systems and their solution, that branch of mechanics which deals with forces and effects of forces acting upon rigid bodies at rest. PREREQUISITES: TECH 2944, PHYS 2112.

3401. Strength of Materials. (3). Analysis and study of structural materials. PREREQUISITES: TECH 3400

3409. Materials Testing Practicum. (1). Qualitative material properties with emphasis on standards, specifications, and methods of testing along with significance of data collected as well as practice of interpreting and preparing reports of results of investigation. PREREQUISITE: Junior standing in Technology

3411. Industrial Materials. (3). Properties of structural materials and methods used to test for these properties. *Two lecture, three laboratory hours per week.*

3413. Materials Structure and Properties. (3). Environmental considerations, properties (both microscopic and macroscopic), testing and classification of materials in the nuclear power industry. Processing, fabrication and application of ferrous and non-ferrous metals, ceramics and polymers. PREREQUISITE: course established and limited to student enrolled in nuclear studies programs

3450. Project Cost Evaluation II. (3). Continuation of study of formulas and techniques used to evaluate financial alternatives to personal and industrial cost projects. Emphasis on analysis of tax structure and how it influences selection of optimum financial alternatives. PREREQUISITE: TECH 3440.

3550. Automated Systems in Technology. (3). Computer configurations in design and production including programming languages, systems programs, application programs and peripheral devices. Planning for automation, evaluation of turnkey systems, methods of implementation and cost justification are also considered. *Three lecture hours per week.* PREREQUISITE: TECH 2251 and TECH 3440.

3831. Industrial Arts Electronics. (3). Brief coverage of applied electronics for prospective teachers. *Two lecture, three laboratory hours per week.* PREREQUISITE: TECH 1821.

3940. Analytic Approaches to Public Fire Protection. (3). Systems analysis and its use and limitations in fire protection and other problem areas. Illustrated with case studies and models using the systems approach to fire suppression and prevention. PREREQUISITE: admission restricted to students seeking B.S. degree in Fire Administration or Fire Prevention Technology.

3942. Fire Related Human Factors. (3). Dynamics of human behavior in fire incidents related to building design, codes and ordinances, and other fire prevention practices. PREREQUISITE: admission restricted to students seeking B.S. degree in Fire Administration or Fire Prevention Technology.

3944. Fire Protection Structure and Systems Design. (3). Design principles involved in protection of structure from fire involvement. Empirical tests and prediction procedures. Control detection, and suppression system design practices. Fundamentals of hydraulic design of sprinkler and water spray systems with recent innovations. PREREQUISITE: admission restricted to students seeking B.S. degree in Fire Administration or Fire Prevention Technology.

4355. Energy and Power Technology. (3). Principles of energy systems and power mechanics to include energy sources, conversion and transmission. Internal and external combustion engines include gasoline, diesel, jet, and rockets. Atomic, solar, and alternative energy sources including laboratory experiments and problem of small energy and energy sources. *Two lecture, three laboratory hours per week.*

4375. Crafts for Teachers. (3). Study and experience with craft materials

4381. Principles of Supervision. (3). Functions of supervisory personnel.

4944. Problems in Technology. (3). Study and research in specific area. PREREQUISITE: senior classification for majors and minors in Technology who offer satisfactory evidence of being qualified to benefit from course.

Q895 VOCATIONAL-TECHNICAL EDUCATION (VTED)

1011. Introduction to Industrial Education. (3). Overview of programs in vocational, technical, and industrial arts education. Includes history and development, aims and objectives, activities, and contemporary nature of programs.

3010. Cooperative Occupational Education. (3). (Same as DTD 3010). Introductory study of occupational education programs which use work experience coordinated with related in-school instruction to provide career preparation in the trade and industrial areas.

3020. Manipulative Skill in Occupational Specialty. (3-15). Credit determined by performance evaluation by department granting degree or acceptance of nationally administered evaluation program.

3030. Knowledge of Related Subjects to Occupational Specialty. (3-15). Credit determined by performance evaluation by department granting degree or acceptance of nationally administered evaluation program.

4010. Occupational Internship. (6). Cooperative work experience program for persons having neither saleable skills nor work experience adequate to meet certification requirements.

4110. Job Analysis. (3). Systems approach to identifying and specifying content in vocational-technical education, components of instructional system, identification of student needs and abilities, job descriptions, job analysis, and instructional objectives.

4120-6120. Curriculum Building in Industrial Education. (3). Basic techniques in curriculum planning in industrial education including planning and preparing learning sequence, preparing learning activities, selecting and preparing learning resources and evaluating student performance.

4130-6130. Organization and Operation of Youth Organizations. (2). Development and operation of youth organizations in vocational training programs. Includes youth organization development, history of youth organizations in America, parliamentary law, youth organization activity and competition.

4140-6140. Organization and Utilization of Advisory Committees. (2). Development and utilization of advisory committees in vocational education training. Includes different committees, their functions, utilization, and role of local labor market.

4210-6210. Methods of Teaching Industrial Education. (3). (Same as SCED 3384). Understandings and skills required for planning, utilizing, and evaluating instructional methodologies and techniques used in industrial education. *Three lecture hours per week.*

4220. Vocational-Technical Instructional Materials. (3). Selection, use, and construction of audiovisual materials for vocational-technical education. Emphasis on integration of these materials into the total instructional system.

4230. Analysis of Teaching. (3). (3301). Micro-teaching demonstrations plus observations and evaluation by teaching experience in vocational-technical subject specialty.

4310. Measurement and Evaluation in Industrial Education. (3). Survey of test and measurement techniques with emphasis on performance evaluation used in industrial education. COREQUISITE: VTED 4120 or permission of instructor.

4361-6361. Organization and Management of the School Shop. (3). Understanding and application of vocational training program organization and classroom management. Includes organization management, administration, training area layout, equipment, facility update, curriculum utilization, and budgeting.

4362-6362. Shop Equipment Maintenance. (3). Understanding of preventive maintenance, maintenance and calibration of instruments and power equipment used in industrial education shops.

4363-6363. School Shop Safety. (3). Overview of evolving school safety standards as prescribed by OSHA and TOSHA. Understanding and application of safety standards. Includes QSHA and TQSHA standards, fire prevention, C.P.R., school shop safety programs, and accident prevention.

4611-6611. Principles and Philosophy of Vocational Education. (3). (Same as DTED 4611). History, philosophy, principles and objectives of vocational education; curriculum problems; contribution of vocational-technical education to general organization and classroom management. Includes organization management, administration, training area layout, equipment, facility update, curriculum utilization, and budgeting.

4641. Techniques of Coordination of Cooperative Occupational Education. (3). (Same as DTED 4641). Selecting training agencies; developing job analyses; selecting and briefing training supervisor; selecting and working with advisory committees; utilizing other community resources. PREREQUISITE: VTED 3010.

4850. Problems in Vocational-Technical Education. (1-3). Independent study and completion of a term paper dealing with a current operational problem in vocational-technical education.

4860. Curriculum Problems in Vocational-Technical Education. (1-3). Independent study and completion of a term paper dealing with a current curriculum problem in vocational-technical education.

4871. Seminar in Vocational-Technical Education. (1-9). Workshops and conferences dealing with instructional and operational problems in vocational-technical education.

4901. Student Teaching. (9). (4841.) In-school experience under the supervision of a qualified instructor of the vocational-technical subject in which the student is specializing. (S/U).

4911-19. Experience in Vocational-Technical Education. (1-9). Advanced training in industry for instructors desiring to up-date their skills or to add other skills related to their occupational specialty.

4930. Conference Leadership in Vocational-Technical Education. (3). Techniques and strategies used to direct small group conferences in education or industry toward specified goals through discussion and interaction.

MECHANICAL ENGINEERING

PROFESSOR E. H. PERRY, P.E., *Chairman*

Room 108A, Engineering Building

Q870 MECHANICAL ENGINEERING (MECH)

1307. Mechanical Engineering Computing. (3). Continuation ENGR 1006, with emphasis on computer solutions of mechanical engineering problems.

2332. Dynamics. (3). Kinematics and kinetics of particles and rigid bodies. *Three lecture hours per week.* PREREQUISITE: CIVL 2131.

2362. Process Principles for Chemical Engineers. (3). Stoichiometric analysis of chemical reactions. Investigation of homogeneous mixtures and phase equilibria. Emphasis on treatment of material and energy balances of chemical process systems. COREQUISITE: MECH 2332.

3305. Mechanical Instrumentation and Measurement. (3). Accuracy, precision and statistical consideration of measurement data; dynamics of measurement; displacement, velocity acceleration, force, torque, pressure and temperature measurement; mechanical impedance; measurement of fluids and instrumentation systems. Lectures supplemented with laboratory demonstrations. PREREQUISITE: MECH 2332; ELEC 2201, 2203.

3311. Engineering Thermodynamics I. (3). Laws of thermodynamics and their applications to engineering problems. PREREQUISITE: MATH 2322; PHYS 2512.

3312. Engineering Thermodynamics II. (3). Applications of thermodynamics laws; emphasis on real gases, real gas mixtures, combustion, gas cycles and vapor cycles. PREREQUISITES: MECH 3311, CHEM 1112.

3321. Dynamics and Control of Machines I. (3). Dynamics analysis of mechanism including rigid body dynamics and balancing of machines. Introduction to linear mechanical systems and stability analysis of linear mechanical systems. PREREQUISITES: MATH 2322, MECH 2332.

3322. Mechanics of Materials. (3). Analysis of stress and strain of deformable solids; tension, compression, torsion and flexure. PREREQUISITE: CIVL 2131.

3323. Mechanical Design and Analysis. (3). Methodology and practice in designing machine components by integrating principles from mechanics of materials, failure theory, fatigue, economics and other principles. PREREQUISITES: MECH 3322.

3325. Materials Laboratory. (1). Materials testing and evaluation. *Three laboratory hours per week.* COREQUISITE: MECH 3322. PREREQUISITE: MECH 3361 or consent of instructor.

3331. Mechanics of Fluids. (3). Statics and dynamics of fluids; applications to measurement of properties of water and air flows. PREREQUISITE: MECH 2332.

3335. Fluids Laboratory. (1). Principles of fluid mechanics are demonstrated and verified. Familiarization with instrumentation and techniques in organizing and reporting results of experimental investigations. *Three laboratory hours per week.* COREQUISITE: MECH 3331.

3341. Mechanical Engineering Analysis. (3). Engineering methods, classical analysis, computer techniques, and their interactions with mechanical engineering problems. PREREQUISITE: MATH 3391.

3361. Materials Science. (3). Structure and properties of solids; modification of structure for engineering purposes; characteristics of polymers, ceramics, and metals. PREREQUISITE: PHYS 2512.

3364. Mass Transfer Operations for Chemical Engineers. (3). Principles of diffusion and mass transfer between phases. Applications of mass transfer in distillation, extraction, gas absorption, humidification and drying. PREREQUISITE: MECH 2362.

4303-6303. Advanced Mechanical Instrumentation. (3). Application of mechanical instrumentation into integrated measuring systems. Microprocessor and microcomputer applications. Analytical and experimental investigations with laboratory investigations and demonstrations. PREREQUISITE: MECH 3305.

4309. Gas Dynamics. (3). Thermodynamics of fluid flow including dynamic and energy relations, adiabatic and diabatic flows. PREREQUISITE: MECH 3312.

4311. Heat Transfer I. (3). Fundamentals of conduction and convection heat transfer. Discussion of Fourier Series, Laplace transforms, and Numerical methods used in heat transfers and analysis. PREREQUISITE: MECH 3312.

4312. Power Generation. (3). Application of principles of thermodynamics, fluid mechanics and heat transfer to conversion of useful energy. Includes terrestrial and thermodynamic limitations, power plants, nuclear energy, solar energy, and direct energy conversion. PREREQUISITE: MECH 3312.

4313-6313. Heat Transfer II. (4). Principles of boiling, condensing, and radiation heat transfer. Fundamentals of heat exchanger design. PREREQUISITE: MECH 4311.

4315-6315. Heating, Ventilation and Air Conditioning. (3). Psychometrics analyses, heating and cooling loads of buildings and analyses of air conditioning systems. COREQUISITE: MECH 4311.

4316-6316. Energy Conservation and Management. (3). Energy conservation including combustion, heat distribution, heat rejection, heating system efficiency, etc. Effects of energy production and utilization on environment. Problems of energy management. PREREQUISITE: MECH 4311.

4317-6317. Fundamentals of Solar Engineering. (3). Introduction to engineering applications of solar energy including solar energy collectors, storage systems, and uses such as power generation and heating and cooling of buildings. COREQUISITE: MECH 4311.

4318-6318. Combustion. (3). Concepts of high temperature and chemically reacting gases. Adiabatic flame temperature. Kinetics of reactions. Detonation. Products of pollutants in combustion systems. PREREQUISITE: MECH 3312.

4322. Mechanical Design. (3). Analytical treatment of methods used in design process including creativity, probability, and optimization as applied to design process, from concept through preliminary design to final design. PREREQUISITE: MECH 3323.

4323. Machine Design. (4). System design concepts applied to machine components; integration of these components into an overall system. Design project assignments. PREREQUISITE: MECH 4322.

4325-6325. Advanced Mechanics of Materials. (3). Unsymmetrical bending and torsion of flexural members of non-circular cross-section, beams, on elastic foundations and other selected topics; deformations beyond elastic limit, theories of failure. PREREQUISITE: MECH 3322.

4326-6326. Biomedical Systems Analysis-Mechanical. (3). (3326). Introduction to concepts used in analyzing living systems. Simulation of body functions with mechanical and computer models. Familiarization with design of mechanical bioengineering device such as heart valves, heart-lung machines, renal dialysis machines, etc.

4331. Turbomachinery. (3). Aerodynamics and flow of fluids in stationary and rotating passages. One, two and three dimensional analysis. *Three lecture hours per week.* PREREQUISITE: MECH 3311, 3331.

4335. Thermodynamics and Heat Transfer Laboratory. (1). Instrumentation and measurement techniques used in thermodynamics and heat transfer studies. Experimental verification of basic principles with emphasis on organizing and reporting of results. *Three laboratory hours per week.* PREREQUISITE: MECH 3312. COREQUISITE: MECH 4331.

4344. Dynamics and Control of Machines II. (3). Analysis of mechanical vibrations for multi-degrees of freedom systems and response, control and stability of mechanical systems. PREREQUISITE: MECH 3321.

4345-6345. Design of Mechanisms. (3). Graphical and analytical mechanism synthesis techniques for path generation, function generation, rigid body guidance and optimization of force transmission characteristics. PREREQUISITE: MECH 3321.

4346-6346. Mechanical Controls. (4). Fundamental control system concepts, the Laplace transformation, modeling of mechanical control system elements, design of mechanical systems and stability criteria. PREREQUISITE: MATH 3391.

4350-6350. Mechanics for Biomedical Engineers. (3). Analyses of the bond and joint structure of the body related to the basic mechanical equations and properties. Mathematical modeling of bone structure, mechanical properties, static loading, dynamic loading, fatigue, wear, corrosion. PREREQUISITE: MECH 3322, 3361.

4352-6352. Fluid Mechanics for Biomedical Engineers. (3). Elements of hydrodynamics, cardio-vascular system, flow of fluids in tubes with elastic walls, pulsatile blood flow input impedance and pulse waves, vascular walls, flow through arterial walls, models of circulation system. PREREQUISITE: MECH 3331.

4354-6354. Heat and Mass Transfer for Biomedical Engineers. (3). Heat transfer, mass transfer, and heat-mass conversion in biological systems. First and second law of thermodynamics applied to biological systems. PREREQUISITE: MECH 4311.

4356. Fundamentals of Rehabilitation Engineering. (3). Concepts of rehabilitation engineering and the roles of the rehabilitation engineer. Introduction to various mobility and communication aids used to assist physically handicapped persons.

4361. Metallurgy. (4). Physical metallurgy, heat treatment, and metallography. *Three lecture, three laboratory hours per week.* PREREQUISITE: MECH 3361.

4364. Chemical Reaction Engineering. (4). Application of chemical kinetics, mass and energy transport to design and operation of chemical reactors.

4366. Chemical Engineering Process and Project Design I. (3). Synthesis of principles of material and energy balances, thermodynamics, heat, mass, and momentum transfer, and reaction engineering with engineering economic analysis in process and plant design.

4367. Chemical Engineering Process and Project Design II. (3). Design and costs of different types of process equipment, along with factors, such as structural design, equipment fabrication, and waste disposal. Case studies of industrial plant designs. Application of computers to design problems.

4368. Chemical Process Control. (3). Methods of process control, types and characteristics of controllers, process modeling, system analysis, and selection of controllers. PREREQUISITE: MECH 4311, MATH 3391.

4371-6371. Mechanical Vibrations. (3). Kinematics of harmonic and non-harmonic vibrations; system of one and several degrees of freedom, free and forced vibrations; self-excited vibrations. PREREQUISITE: MATH 3391, MECH 2332.

4381. Manufacturing Engineering Design. (3). Machines, tools, and processes used in modern production. PREREQUISITES: MECH 3322; MECH 3361.

4382. Manufacturing Engineering Design. (3). Design of electromechanical systems for manufacturing processes and production operations. Design based on optimization of machine interaction, selection of materials and the manufacturing process for high speed production equipment. PREREQUISITE: MECH 3322, 3361.

4391. Mechanical Engineering Projects. (1-3). Independent investigation of mechanical engineering problem in consultation with instructor. PREREQUISITE: consent of instructor.

THE UNIVERSITY COLLEGE

The following courses are open to students enrolled in the University College. Others may enroll with the permission of the Dean of the College.

The specific content of Liberal Studies and Thematic Studies courses will vary from semester to semester; general course descriptions are presented here.

R950 LIBERAL STUDIES (UNIV)

1010. Communication I. (6). Exercises in critical listening and interpretation and in effective writing and speaking based on rhetorical analyses of selected documents (e. g., essays, documentary films, narratives, plays, poems, speeches, etc.) **PREREQUISITE:** application or admission to University College, or permission of dean.

1020. Communication II. (6). Research into and critical interpretation of those media which create environment of symbols and of effects of such environments on human belief and action; for example, writing in periodical and book form, radio, television, film, recorded music and systems of electronic communication. Individual research into symbols used for communication and environment(s) these symbols produce. **PREREQUISITES:** UNIV 1010 or ENGL 1101 and ENGL 1102 or their equivalents, and application or admission to the University College or permission of dean.

1210. Humanities. (6). Research into and critical interpretation of major documents and symbols of Western civilization; emphasis on man's attempt, in philosophy, religion, history, literature, and fine arts, to frame coherent place for himself in world. One or two historical periods stressed. **NOTE:** On occasion, this course will be same as certain sections of *HIST 1301* and *HIST 1302*, focusing on survey of Western civilization. See *Schedule of Classes*. **PREREQUISITE:** application or admission to University College, or permission of dean.

1410. Social Science. (6). Introduction to fundamental concepts used by disciplines of anthropology, economics, political science, geography, psychology and sociology. Emphasis on understanding human behavior through study of

culture, society and its institutions, personality and mental processes, allocation of resources, and distribution of power. Students encouraged to develop a social science perspective on human behavior through study of important research findings and research of their own. **NOTE:** On occasion, this course will be same as certain sections of *INTL 1101* and *1102*, with regional focus on *Third World Nations*. See *Schedule of Classes*. **PREREQUISITE:** application or admission to University College or permission of dean.

1610. Natural Science. (6). Basic processes of physical and natural science as applied to selected areas of biology, chemistry, geography, geology, and physics. Formulations of models and use of inductive reasoning in study of physical phenomena used to illustrate interrelationships among natural science disciplines. Laboratory work included. **PREREQUISITE:** application or admission to University College, or permission of dean.

1810. Leisure and Recreation. (2 or 4). Relationship between leisure, recreation, and work; emphasis on balanced lifestyle. Opportunities to participate in and demonstrate selected recreational skills and activities. **PREREQUISITE:** application or admission to University College, or permission of dean.

R950 THEMATIC STUDIES (UNIV)

3500-3599. Thematic Studies. (6-9). Interdisciplinary seminars about significant problems, themes, or ideas. Specific course descriptions each semester in "Addenda" section of *Schedule of Classes*. **PREREQUISITE:** application or admission to University College, or permission of dean.

R950 INDIVIDUALIZED STUDIES (UNIV)

1005. Directed Study. (1-3). Directed study at introductory level. Student may seek permission to study under faculty direction in an area not routinely taught. This course May be

repeated for maximum credit of six hours. **PREREQUISITE:** application or admission to University College, or permission of dean.

2110. Field Experience. (1-6). Supervised on-site training in basic skills. May be repeated up to a maximum of 6 hours.

3700. Special Topics. (3-6). Examination of selected topics announced in *Schedule of Classes*.

4110. Internship. (3-12). Supervised training in work related to student's educational objectives. May be repeated to maximum of 12 hours. **PREREQUISITE:** admission to University College.

4380. Independent Study. (1-3). Directed individual study or research. Student who has identified area of study pertinent to his coordinated study program, but not routinely taught, may pursue the study under direction of faculty member. May be repeated to maximum of 6 hours. **PREREQUISITE:** admission to University College.

4996. Special Project. (9). Academic research or other creative activity resulting in tangible product to demonstrate synthesis of student's Coordinated Study. **PREREQUISITE:** admission to University College and completion of a Thematic Studies course (UNIV 35—). Students will receive an in-progress grade or a letter grade.

R950 EXPERIENTIAL LEARNING (UNIV)

A portfolio describing and documenting knowledge gained through experience or non-traditional instruction may be prepared by a University College student for assessment by a faculty member. (See *Fees and Charges* and *Academic Regulations* sections for more details.) That faculty assessor recommends the descriptive title, level, and amount of credit to be assigned by the dean of University College.

1900-1999. Introductory Level Experiential Learning in (descriptive title).

2900-2999. Intermediate Level Experiential Learning in (descriptive title).

3900-3999. Advanced Level Experiential learning in (descriptive title).

INDEPENDENT DEPARTMENTS AND PROGRAMS

AEROSPACE STUDIES

COLONEL DOUGLAS W. STOCKTON

Professor of Aerospace Studies

Room 404, Jones Hall

V950 AEROSPACE STUDIES (AERO)

1111. Air Force Today. (1). Study of world military forces through treatment of U S Department of Defense and doctrine, mission and functions of United States Air Force. *One class hour per week and one hour of *Leadership Laboratory*

1112. Air Force Today. (1). Continuation of AERO 1111. *One class hour per week and one hour of *Leadership Laboratory*

2211. The Development of Air Power. (1). Introduction to study of air power. Historical perspective starting before Wright Brothers and continuing through early 1970's. *One class hour per week and one hour of *Leadership Laboratory*

2212. The Development of Air Power. (1). Continuation of AERO 2211. *One class hour per week and one hour of *Leadership Laboratory*

PROFESSIONAL OFFICER COURSE

3211. Aerospace Studies Four-Week Field Training. (4). Twenty-eight day course conducted during summer at active installation of USAF; consists of approximately 185 hours of instruction in Air Force base functions, leadership, physical training, Air Force environment, career orientation, and survival training. Students assigned to groups of twenty-five and individually counseled and evaluated on their performance. Emphasis on self-initiated leadership activities. **PREREQUISITE:** AERO 1111, 1112, 2211, 2212, or equivalent

3212. Aerospace Studies Six Week Field Training. (6). Forty-two day course conducted during summer at active installation of USAF; Consists of approximately 258 hours of instruction on role of military forces, organization of Defense Department, instruments of national security, Air Force base functions, leadership, physical training and Air Force environment. Students are assigned to groups of approximately twenty-five and individually counseled and evaluated on their performance.

3311. Air Force Management and Leadership. (3). Professionalism, leadership and management. Includes meaning

of professionalism, professional responsibilities, military justice system; leadership theory, functions and practices; management principles and functions, problem solving, and management, tools, practices and controls. *Three class hours per week and one hour of *Leadership Laboratory*

3312. Air Force Management and Leadership. (3). Continuation of AERO 3311. *Three class hours per week and one hour of *Leadership Laboratory*

4411. National Security Forces in Contemporary American Society. (3). Fundamental issues and requirements of national security. Extensive study of civil-military relations, nature of international environment and strategic requisites for defense. *Three class hours per week and one hour of *Leadership Laboratory*

4412. National Security Forces in Contemporary American Society. (3). Continuation of AERO 4411. *Three class hours per week and one hour of *Leadership Laboratory*

4413. Elementary Aeronautics. (3). Introduction to aviation and the fundamental principles of flight, basic meteorology and its applications to aviation; use of navigation computers, instruments, and radio aids; basic regulations governing airmen, aircraft operations, and flight safety, preparation for FAA Private Pilot Written Examination. *Three class hours per week*

***Leadership Laboratory.** Evolves around cadet corps, a microcosm of an Air Force organization. Opportunity for actual leadership training experiences as it is largely cadet planned and operated. Additionally, staff uses it as a means to evaluate and develop leadership potential. *One hour per week*

AUDIOLOGY AND SPEECH PATHOLOGY

PROFESSOR DANIEL S. BEASLEY

Chairman

*Speech and Hearing Center
807 Jefferson*

The Department of Audiology and Speech Pathology offers majors at the graduate level only.

4100-6100. Audiology. (3). Directed toward undergraduate students from disciplines other than communication disorders. Includes nature of sound, structure and function of the human

auditory system, disorders of hearing, measurement of hearing and loss, hearing conservation, and aural rehabilitation.

4200-6200. Speech Pathology. (3). Communication disorders with special reference to those encountered by educators and others in population 0-21. Observation and discussion of classroom management, roles of various specialists, and parent conferences

INTERNATIONAL STUDIES

ASSOCIATE PROFESSOR

JAMES K. MUSKELLEY, *Director*

307, Winfield Dunn Building

Courses offered for the International Studies program with the cooperation of two or more University departments are listed below. Although some of the interdepartmental courses at the upper-division level are designed primarily to serve the needs of students participating in interdisciplinary programs, enrollment in the courses is not limited to these studies.

V935 INTERNATIONAL STUDIES (INTL)

1101. Analysis of Developing Nations. (3). Interdisciplinary survey of developing nations, other societies and problems of technologically developing nations. Basic concepts and methods of social sciences employed to study processes of social change in cross-cultural comparison. **NOTE:** This course when taken with its sequence INTL 1102 has been approved to satisfy the social science requirement of the University College (UNIV 1410). A student may not receive credit for both INTL 1101-1102 and UNIV 1410.

1102. The Third World: A Regional View. (3). Interdisciplinary survey of contemporary developing nations within a major world region. Regional focus on Africa, Latin America, Southeast Asia, or Indian Subcontinent.

4201. Seminar in Latin American Studies. (3). Interdisciplinary seminar; focuses on specific theme or region in Latin America and incorporates significant materials from several disciplines in program in Latin American Studies. Written report will be presented for panel discussion. **PREREQUISITE:** permission of Latin American Studies advisor

4301. Seminar in African Studies I. (3). Interdisciplinary seminar to integrate knowledge of Africa and to exercise

competence in several disciplines through supervised research. **PREREQUISITE:** nine hours of course work in African studies representing three disciplines from group anthropology, geography, history, and political science, or permission of African Studies advisor.

4302. Seminar in African Studies II. (3). **PREREQUISITE:** INTL 4301.

4601. Seminar in International Relations. (3). Investigation of selected topics in international relations from interdisciplinary perspective. Individual research and presentation of major paper which integrates tools, data or concepts of two or more disciplines. **PREREQUISITE:** permission of International Relations advisor.

MEMPHIS STATE UNIVERSITY LIBRARIES

PROFESSOR LESTER POURCIAU, *Director*
Room 101A, Old Brister Library

V945 MSU LIBRARIES (LBRY)

2010. Introduction to the Use of Library Resources. (3). Introduction to organization of academic library material; emphasis on bibliographic access to information—Lectures and assigned research problems to a acquaint student with general and specialized methods of access to library material.

LIBRARY SCIENCE

PROFESSOR EVELYN GEER CLEMENT,
Chairman

Room 101, John Willard Brister Library

V920 LIBRARY SERVICE (LIBS)

4111-6111. Library Materials for Children. (1-3). Evaluation and selection of books and related library materials for leisure interests and curriculum needs of children through elementary school; extensive reading, introduction to selection criteria, bibliographical aids, authors and illustrators, and types of literature and information books.

4121-6121. Library Materials for Young People and Adults. (3). Evaluation and selection of books and related library materials for leisure interests and curriculum needs of young people and adults from junior high school up; extensive reading, introduction to selection criteria, bibliographic aids, authors and illustrators, and types of literature and information books.

4131-6131. Introduction to Bibliography. (3). Theory and purpose of bibliography as form of access to information; emphasis on general reference sources; introduction to principles, practices, and methods of reference service.

4232-6232. Cataloging and Classification. (3). Introduction to principles and techniques of cataloging and classification of books and other library materials.

4331-6331. School Library Administration. (3). Organization and administration of elementary and secondary school libraries, including standards, evaluation, facilities, equipment, support, student assistants, and relationship to instructional and guidance programs of school.

4401-6401. Foundations of Librarianship. (3). Introduction to librarianship as a profession and library as institution in cultural and political setting. Influence of social issues, societal needs, professional organizations, and federal legislation on goals, ethics, organization, programs, and problems of libraries and librarians.

MILITARY SCIENCE

MAJOR DAVID C. DE GRANGE
Professor of Military Science

Room 110, Army ROTC Building

V955 MILITARY SCIENCE (ARMY)

1110. Leadership and the US Army. (1). Principles and techniques of leadership at small unit or group level with emphasis on communication and motivation. Study of structure and functions of components and branches of US Army.

1130. National Defense and Concept of Force. (1). Theories of conflict and cause of war. Evolution of warfare to present with considerations of elements of military power, national power and principles of war. Analysis of national security system and foreign policy since 1945.

1140. Soviet Armed Forces. (1). Organization, training, tactics, and capabilities of USSR combat units; leadership and present-day use and role of USSR armed forces.

1150. U.S. and Warsaw Pact Weapons. (1). Comparative study of development, characteristics, capabilities, and use of US and WP weapon systems, small arms, armor, artillery and aircraft. Actual or training models of small arms and anti-tank weapons.

1180. Survival/Field Crafts. (1). Knowledge of techniques necessary for "living off the land." Finding/catching food, navigation, and shelter. Temperate climates emphasized. Culminate with optional one-day practicum.

1310. Leadership Assessment. (1). Determination of student's leadership strengths and areas requiring improvements in 12 behavioral dimensions. Identifies developmental actions required to build on strengths and to strengthen areas requiring improvement. Feedback provided from 5 performance-based simulations.

2110. Basic Soldier Skills. (2). Skills required of soldiers in US Army. Includes techniques on conduct of inspections, physical training and land navigation and practical application of drill movements and basic first aid.

2140. Combat Training of the Individual Soldier and Patrolling. (2). Emphasis on preparation of the individual for combat. Preparation of potential leaders in combat through study of the knowledge and skills needed by an individual soldier. Skill developed in planning and organizing combat patrols. Semester to culminate with optional one-day practicum.

2150. Firearms and Marksmanship. (2). Introduction to various small arms weapons found in military and basic skills in marksmanship using smallbore weapons.

2160. Adventure Training. (2). Adventure-type training typically conducted in US Army units including basic mountaineering and rappelling, bridging and rafting, and orienteering. Three one-day practice. One lecture hour per week, eight laboratory hours per month.

2170. Tactics Strategy and War Games. (2). Basic fundamentals of planning, organizing and employing units in combat. The art and science of warfare, through war games, practice of skills in simulated situations.

2180. Special Combat Operations. (2). Combat operations in urban, desert, and arctic terrain and of special operations units, such as airborne, air-assault, and ranger. Emphasis on historic case studies.

2190. Basic Military Science. (1-6). Six-week training normally taken during the summer between the second and third years by those students who have not taken previous ROTC training, or who have not completed the required basic military science courses for advanced course enrollment. Training conducted at designated U.S. Army installation and includes practical experience in leadership, small unit tactics, weapons drill, and communications under field conditions. After completion of camp, student required to complete satisfactorily an examination administered by Military Science Department. Student must register for this course following successful camp completion in order to receive appropriate credit. **PREREQUISITE:** Permission of Professor of Military Science.

3110. Advanced Military Science I. (4). First year of the advanced course includes military teaching principles, leadership and exercise of command, map and aerial photograph reading, small unit tactics, communication, field training exercises, branches of the Army and preparation for RQTC Advanced Camp. Three lecture, two laboratory hours per week. **PREREQUISITE:** ARMY 1110 and 2110 and permission of Professor of Military Science.

3120. Advanced Military Science II. (4). Continuation of first year advanced course. **PREREQUISITE:** ARMY 3110.

3190. Advanced Camp Training. (6). **PREREQUISITE:** permission of Professor of Military Science.

4110. Advanced Military Science III. (4). Second year of the advanced course consists of training in operations, logistics, military administration, military justice, personnel management, and service orientation in preparation for call to active duty. **PREREQUISITE:** ARMY 3120. Three lecture, two laboratory hours per week.

4120. Advanced Military Science IV. (4). Continuation of second year advanced course. **PREREQUISITE:** ARMY 4110.

4210. Advanced Camp Review I. (0). For cadets who have completed advanced course, but not advanced camp, to maintain required skills. Diagnostic tests given to determine MQS proficiency and APRT and weight standards. Cadets assigned study-development if necessary. **PREREQUISITE:** 4120 and permission of PMS.

4211-4215. Advanced Course Review II. (0). For lieutenants who have completed advanced course, but not attained a degree. Diagnostic tests given to determine MQS proficiency and APRT and weight standards. Lieutenants assigned independent study-development if necessary. **PREREQUISITE:** 4120 and permission of PMS.

NAVAL SCIENCE

CAPTAIN FRANCIS M. DREESSEN,
Professor of Naval Science

Room 101A, Art Annex

V958 NAVAL SCIENCE (NAVY)

1100. Navy Laboratory. (1). Two laboratory hours per week.

1101. Introduction to Naval Science. (3). Orientation and concepts of seapower. Mission, organization, and warfare components of the Navy and Marine Corps.

1102. Naval Ships Systems I - Engineering. (3). Ship characteristics and types including ship design, hydrodynamic forces, stability, compartmentation, propulsion, electrical and auxiliary systems, interior communications, ship control, and damage control.

1103. Navy Laboratory. (1). Two laboratory hours per week.

2201. Naval Ships Systems II - Weapons. (3). Theory and employment of weapons systems. Processes of detection, evaluation, threat analysis, weapon selection, delivery, guidance, and explosives.

2202. Seapower and Maritime Affairs. (3). U.S. naval history from the Revolution to the present with emphasis on major developments. Present day concerns in seapower and maritime affairs.

3301. Navigation and Naval Operations I. (3). Piloting and celestial navigation including theory, principles, and procedures. Use of charts, visual and electronic aids, and the theory and operation of magnetic and gyro compasses.

3302. Navigation and Naval Operations II. (3). International and island rules of the nautical road, relative-motion vector-analysis theory, relative motion problems, formation tactics, and ship employment.

3310. Evolution of Warfare. (3). Historical development of warfare from the beginning of recorded history to the present focusing on the impact of major military theorists, strategists, tacticians, and technological developments.

4401. Naval Leadership and Management I. (3). Advanced study of organizational behavior and management in the context of the naval organization. Practical applications are explored by the use of experiential exercises, case studies, and laboratory discussions.

4402. Naval Leadership and Management II. (3). Naval junior officer responsibilities in naval administration; builds on and integrates the professional competencies developed in prior course work and professional training.

4410. Amphibious Warfare. (3). Historical survey of the development of amphibious doctrine and the conduct of amphibious operations. Emphasis is placed on the evolution of amphibious warfare in the 20th century, especially during World War II.

3000. Naval Science Institute (NSI). (8). Intensive six-week professional academic and training program conducted each summer at a naval installation by the Chief of Naval Education and Training for students entering the Two-year NROTC Programs. The Naval Science Institute is the equivalent of the NROTC Basic Course.

UNIVERSITY HONORS PROGRAM

PROFESSOR JOSEPH R. RILEY, *Director*

Room 12B, Old Brister Library

A description of the University Honors Program appears in *Colleges and Degree Programs*. Descriptions of the college and departmental programs are found with the appropriate major and degree descriptions.

V960 UNIVERSITY HONORS PROGRAM (UNHP)

1100. The Honors Forum. (1). Series of one-hour weekly lectures, demonstrations, performances, films, student presentations, and/or discussions designed to introduce the many disciplines, areas and intellectual and cultural opportunities available in the University. (S/U)

3100-3199. Junior Honors Colloquium I. (3). Interdisciplinary colloquium on broad theme or topic. Specific course descriptions each semester in "Addenda" section of *Schedule of Classes*. **PREREQUISITES:** junior standing and permission of Director of University Honors Program.

3200-3299. Junior Honors Colloquium II. (3). Same as UNHP 3100, except different theme or topic. **PREREQUISITES:** junior standing and permission of Director of University Honors Program.

4100-4199. Senior Honors Seminar I. (3). Interdisciplinary seminar on narrower theme or topic than ones in junior honors colloquia. Specific course descriptions each semester in "Addenda" section of *Schedule of Classes*. **PREREQUISITES:** senior standing and permission of Director of University Honors Program.

4200-4299. Senior Honors Seminar II. (3). Same as UNHP 4100, except different theme or topic. **PREREQUISITES:** senior standing and permission of Director of University Honors Program.

4300. Senior Honors Thesis. (3). In lieu of one of the above courses, the honors student may write a thesis on a topic approved by the University Honors Council and directed by a faculty committee chosen by the student and approved by the Honors Council. **PREREQUISITES:** senior standing and permission of the Director of the University Honors Program.

URBAN STUDIES

ASSOCIATE PROFESSOR
MELVIN C. BARBER, *Coordinator*

Room 130, Old Brister Library

A description of the interdisciplinary program in Urban Studies and the requirements for the major and minor in Urban Studies are listed in *Colleges and Degree Programs*. Courses offered by the departments of Anthropology, Economics, Foundations of Education, Geography, History, Political Science, and Sociology and Social Work are included in this program, and the descriptions of these courses will be found under the appropriate departmental headings.

V980 URBAN STUDIES (URBN)

4001. Urban Studies Seminar. (3). Urban problems and their causes; overview of perspectives and contributions of each of six participating disciplines which include urban anthropology, urban geography, urban history, urban economics, urban politics, and urban sociology. Summary reviews of problems and proposed solutions in related fields presented. Required for all majors.

4995. Urban Studies Internship. (3). Supervised internship working with urban agencies in city, state or national level. Internship program deals primarily with data collection and analysis.

INTERDISCIPLINARY STUDIES

V933 INTERDISCIPLINARY STUDIES (INTD)

The following courses, INTD 3510 and 3511, comprise an eight month training program in law enforcement which

prepares students for seasonal employment as rangers in the National Park Service and the Arkansas and Tennessee State Park Services. The program is coordinated by the Department of Psychology and the area of Parks and Recreation in the Department of Health, Physical Education and Recreation.

3510. Behavior Management in Recreation Areas I. (4). Concepts of industrial training and social psychology applied to teaching content and skills required for people-management positions as rangers in federal and state parks. Classroom

instruction, readings and applied practical exercises included. PREREQUISITE: permission of instructor.

3511. Behavior Management in Recreation Areas II. (4). Advanced consideration of content and skills involved in managing people who visit recreation areas, including: abnormal behavior and human relations, basic accident investigation, alcohol and drug abuse, and courtroom testimony and procedures. PREREQUISITE: INTD 3511 and permission of instructor.

SCHOOL OF NURSING

U970 NURSING (NURS)

3000. Advanced Pharmacotherapeutics in Nursing. (3). In depth pharmacotherapeutic approach to selected disease states and its application to nursing intervention. PREREQUISITES: CHEM 1051, 1052 and basic pharmacology.

3001. Individualized Study. (1-3). Directed individualized approach to increase nursing knowledge, understanding, and skills according to student needs and level objectives. Assessment of student determines content areas and clinical experience needed. May be repeated for maximum of 6 credit hours. *Credit not applied toward B. S.N. degree.*

3002. Nursing Theories. (3). Introduces conceptual thinking and theoretical analysis of contemporary theories of nursing and related disciplines with application to nursing research and practice. Open also to special students with permission of instructor.

3101. Health Assessment. (1-3). (3100). Aspects of comprehensive health assessment of individuals and families, interviewing and history taking as well as physical assessment skills; problem oriented record as method of organizing data.

Clinical laboratory. Open also to special students with permission of instructor.

3102. Clinical Nursing I. (1-3). (3100). Nursing process in giving primary care to individuals and families in community setting. Emphasis on direct care, wellness, communication, and problem solving skills. *Clinical laboratory.* PRE-or COREQUISITE: BIOL 3440 or NURS 3000.

3200. Clinical Nursing II. (1-6). Focusing on nursing process in giving primary and secondary care to individuals and families with chronic health problems in community settings. Group membership skills emphasized. *Clinical laboratory* PREREQUISITE: NURS 3002, 3101, 3102. PRE-or COREQUISITE: BIOL 3440 or NURS 3000.

4000. Clinical Nursing III. (1-6). Emphasizes conceptual approach in nursing process for clients of all age groups with complex health problems. Clinical experience focuses on developing role of professional nurse in secondary and tertiary health care settings. *Clinical laboratory* PREREQUISITE: NURS 3200. COREQUISITE: NURS 4100. PRE-or COREQUISITE: EDRS 4541.

4100. Nursing Leadership. (1-3). Theory, research, and practice of leadership roles in nursing groups within health care system; such concepts as communication, status, power motivation, change, conflict resolution, job satisfaction, and decision making in relation to nursing process and practice in groups. Open also to special students with permission of instructor. COREQUISITE: NURS 4000.

4200. Clinical Nursing IV. (6). Incorporation of curricular concepts into synthesizing and resocializing process. Student responsible for identifying specific learning objectives in selected area of nursing practice; for demonstrating a professional role change through application of curricular concepts, nursing theories, and relevant research findings within framework of nursing process; and for demonstrating synthesis through re-evaluation of personal nursing philosophy. *Clinical laboratory.* PREREQUISITE: NURS 4000, 4100. COREQUISITE: EDRS 4542.

4300. Topics in Nursing. (3). Individual or group investigation into new or special interest areas in the delivery of health care. May be repeated when the topics varies. NOTE: A maximum of three hours may be applied to the B. S.N. degree.

1985-86 TENTATIVE CALENDAR

This calendar is tentative, and students should check the *1985-86 Undergraduate Programs and Regulations Catalog* and the *Schedule of Classes* for possible changes or additions.

FALL SEMESTER 1985

AUGUST 26-29: Off-campus registrations (exact dates, times, and locations to be announced prior to registration)

AUGUST 29: Meeting of the new members of the University faculty, University Center Ballroom 9:00 A.M.

AUGUST 30: Meeting of the entire University faculty, University Center Ballroom, 9:00 A.M., followed by meetings by colleges and departments

SEPTEMBER 2: Holiday: Labor Day

SEPTEMBER 3-5: Registration Week: For detailed dates and times, see the *Schedule of Classes* for the Fall Semester, 1985

SEPTEMBER 6: Classes meet as scheduled

SEPTEMBER 12:

Last day for adding courses

Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in December, 1985.

OCTOBER 2: Last day for removing Summer Session "Incomplete" grades

OCTOBER 3: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

OCTOBER 25:

Last day for all students to withdraw from the University

Last day for all students to drop courses

NOVEMBER 27: Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in May, 1986

NOVEMBER 28-December 1: Thanksgiving Holidays

DECEMBER 6: Last day for submission of theses/dissertations to the Graduate School

DECEMBER 12: Study Day

DECEMBER 13: Final examinations begin

DECEMBER 21: Commencement

SPRING SEMESTER 1986

JANUARY 6-9: Off-Campus registrations (exact dates, times, and locations to be announced prior to registration)

JANUARY 13-15: Registration Week: For detailed dates and times, see the *Schedule of Classes* for the Spring Semester, 1986

JANUARY 16: Classes meet as scheduled

JANUARY 22:

Last day for adding courses

Last day for graduate students to file "Intent to Graduate" card with the Graduate School Office for degree to be conferred in May, 1986

FEBRUARY 4: Last day for removing Fall Semester "Incomplete" grades

FEBRUARY 12: Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

MARCH 7:

Last day for all students to withdraw from the University

Last day for all students to drop courses

MARCH 16-23: Spring Holidays

APRIL 16: Last day for making application to the dean of the appropriate undergraduate college for degree to be conferred in August, 1986

APRIL 25: Last day for submission of theses/dissertations to the Graduate School

MAY 1: Study Day

MAY 2: Final examinations begin

MAY 10: Commencement

FIRST SUMMER TERM 1986

JUNE 2-3: Registration: For detailed dates and times, see the *Schedule of Classes* for the Summer Session, 1986

JUNE 4: Classes meet as scheduled

JUNE 5:

Last day for adding First Term courses

Last day for graduate students to file "Intent to Graduate" cards with the Graduate School Office for degree to be conferred in August, 1986

JUNE 19:

Last day for graduate students to submit master's degree candidacy forms and doctoral candidacy forms to College Directors of Graduate Studies

Last day for all students to withdraw from the University (First Summer Term)

Last day for all students to drop courses (First Summer Term)

JUNE 24: Last day for removing Spring Semester "Incomplete" grades

JULY 4: Holiday: Independence Day

JULY 9: Final examinations

SECOND SUMMER TERM 1986

JULY 14: Course adjustment day and registration for the Second Summer Term

JULY 15: Classes meet as scheduled

JULY 30:

Last day for making application to the dean of the appropriate undergraduate college for degrees to be conferred in December, 1986

Last day for all students to withdraw from the University (Second Summer Term)

Last day for all students to drop courses (Second Summer Term)

AUGUST 1: Last day for submission of theses/dissertations to the Graduate School

AUGUST 15: Final examinations

AUGUST 17: Commencement

EXTENDED SUMMER TERM 1986

JUNE 2-3: Registration: for dates and times, see the *Schedule of Classes* for Summer Session, 1986

JUNE 4: Classes meet as scheduled

JUNE 5:

Last day for graduate students to file "Intent to Graduate" card with the Graduate School for degree to be conferred in August, 1986

Last day for adding or registering for Extended Term courses

JUNE 19: Last day for graduate students to submit master's degree candidacy and doctoral candidacy forms to College Directors of Graduate Studies

JUNE 24: Last day for removing Spring Semester "Incomplete" grades

JULY 4: Holiday: Independence Day

JULY 9:

Last day for all students to drop courses (Extended Term)

Last day for all students to withdraw from the University (Extended Term)

JULY 14-15: Mid-Term Break

JULY 30: Last day for making application to dean of appropriate undergraduate college for degrees to be conferred in December, 1986

AUGUST 1: Last day for submission of theses/dissertations to the Graduate School

AUGUST 14: Study Day

AUGUST 15: Final examinations

AUGUST 17: Commencement

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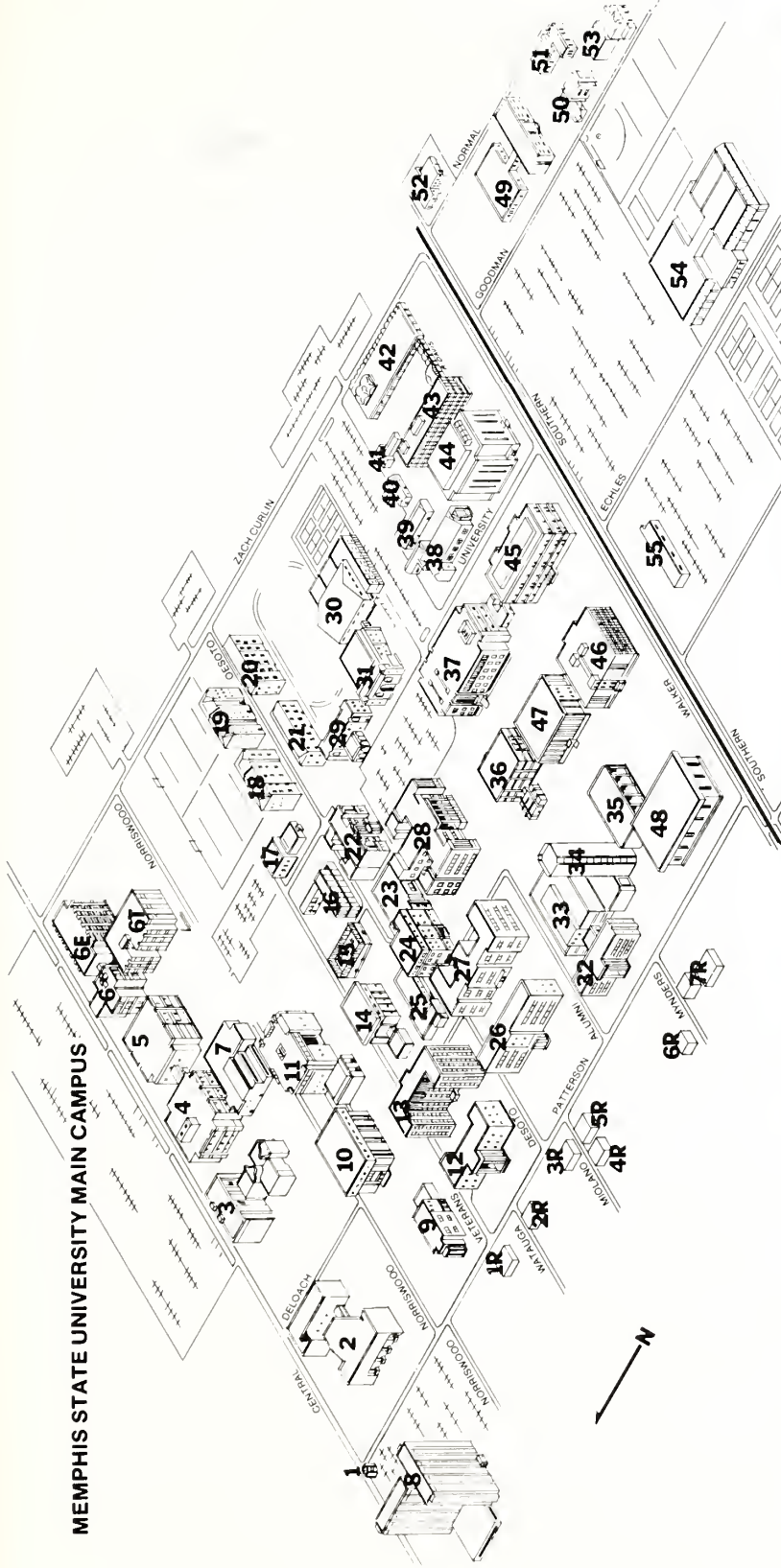
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MEMPHIS STATE UNIVERSITY MAIN CAMPUS

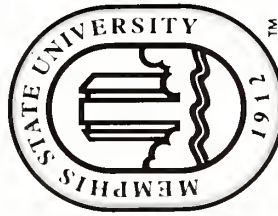


1. Information Center
2. Fogelman College of Business and Economics
3. Humphreys School of Law
4. Theatre and Communication Arts
5. Music Bldg.
6. Herff College of Engineering
- 6E. Lecture Hall
- 6F. Herff College of Engineering
- 6T. Engineering Technology
7. Fine Arts Complex
8. Richardson Towers
9. Panhellenic Bldg
10. Psychology Bldg
11. Dunn Mathematics and Foreign Languages
12. Smith Hall
13. Rawls Hall
14. Meeman Journalism Bldg
15. Heating & Power Plant
16. Physical Plant & Planning
17. Health Center
18. McCord Hall
19. Browning Hall
20. Robison Hall
21. Hayden Hall
22. Manning Hall
23. Cafeteria
24. Jones Hall
25. Old Building
26. West Hall
27. Mynders Hall
28. Administration Building
29. Scates Hall
30. Field House
31. Old Gymnasium
32. Johnson Hall
33. Brister Library
34. Brister Library Tower
35. Brister Library
36. Mitchell Hall
37. University Center
38. Navy ROTC
39. Army ROTC
40. Special Education & Rehabilitation
41. Army ROTC
42. Campus School
43. College of Education
44. Life Sciences
45. Smith Chemistry Bldg
46. Ellington Biological Bldg
47. Clement Humanities Bldg
48. Patterson English
49. South Hall
50. Newport Hall
51. Lambda Chi Alpha
52. Athletic Office Bldg
53. Alumni Center
54. Physical Education
55. Printing Services

- RELIGIOUS HOUSES.**
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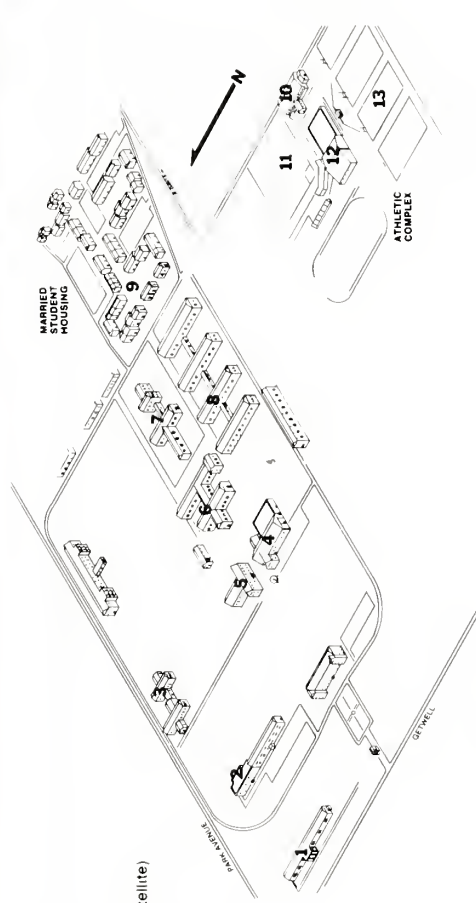
Locations not shown on map:

- Child Development Center
- Chucalissa
- Speech and Hearing Center



SOUTH CAMPUS

1. Center for Nuclear Studies
2. Physics & Biology Research
3. Catfish Research Center
4. WKNO-TV
5. Memphis Opera Co
6. Central Receiving
7. Speech & Hearing Center (satellite)
8. Storage
9. Married Student Housing
10. Pool
11. Nat Buring Baseball Field
12. Athletic Dressing Facilities
13. Practice Fields



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